EFFECTIVENESS OF GUIDED IMAGERY ON EXAMINATION ANXIETYAMONG ADOLESCENTS IN SELECTED SCHOOLS

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M.G.R MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING.

APRIL 2014

EFFECTIVENESS OF GUIDED IMAGERY ON EXAMINATION ANXIETY AMONG ADOLESCENTS

APPROVED BY THE DISSERTATION COMMITTEE ON : _____

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CERTIFICATE

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ABSTRACT

The present project is **"A study to evaluate the effectiveness of guided imagery on "examination anxiety" among adolescents in selected schools at Madurai."**

An in-depth review of literature was collected for the study. The conceptual framework was based on Widenbach's Helping Art of Clinical Nursing Theory. The research design used for this study was True - experimental pretest, post test control group design . Samples were selected by using Simple Random sampling technique. The experimental and control group had 30 participants each. The tool used for assessing the Examination anxiety among adolescents was West side anxiety scale. Content validity of the tool was outlined by 7 experts in the field of medicine, nursing and psychology. The split half technique was used to assess the reliability of the tool. A pilot study was done among 6 subjects to check the feasibility of conducting the study. The data collection period was 6 weeks. The experimental group received Guided imagery for 15-20minutes a day for4 Weeks. The post test was done using the same tool after the intervention. Descriptive and Inferential statistics were used to analyse the data. The following were the findings of the study. The mean post test level of examination anxiety in experimental group (22.5) was lesser than the mean post test level of examination anxiety in the control group (33.5). The obtained't' value was (9.16). There was a significant reduction in the post test level of examination anxiety in the experimental group. There was no significant association between the level of Examination anxiety and demographic variables of the adolescents. The study findings imply that the guided imagery was effective in reducing Examination anxiety among adolescents.

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INTRODUCTION

BACKGROUND OF THE STUDY

"Imagination is more powerful than knowledge".

- Albert Einstein

Adolescence, aptly described as "The Wonder Years," is a time of unprecedented growth and change for young people. Parents wonder if they will survive their child's journey through puberty, middle grades teachers wonder how to keep their students focused on learning, and young adolescents themselves wonder if they are normal. (John Lounsbury)

Adolescence is often described as a phase of life that begins in biology and ends in society. It means that physical and biological changes are universal and take place due to maturation but the psychosocial and behavioural manifestations are determined by the meaning given to these changes within a cultural system. The experience of adolescents during teen years would vary considerably according to the cultural and social values of the network of social identities they grow in.

Adolescence within all of these perspectives is viewed as a transitional period between childhood and adulthood, whose cultural purpose is the preparation of children for adult roles. It is a period of multiple transitions involving education, training, employment and unemployment, as well as transitions from one living circumstance to another.

Adolescent's educators hence not only must address these developmental changes, they also must deal with the varying rate at which students undergo the changes such as physical, emotional, and social development. It is easy to forget the intellectual development differences since they are not readily visible, but if one

observes , he will soon become aware of these differences, too. For example, adolescents are moving from concrete thinking to abstract thinking, but this transition is occurring at varying rates for different children, and individual students move back and forth from concrete to abstract continually or function differently in different classes. Students are beginning to think about thinking, and this sometimes confuses them. Teachers of adolescents need to be knowledgeable of the varied developmental characteristics so that they can design instruction and classroom management strategies that address these ongoing changes, and support and capitalize on these characteristics.

Adolescents during this critical period if hold unmet needs, may have serious consequences not for the individual alone but for the family, community, society and Nation at large. The anxiety and stress associated with achievement failure, lack of confidence etc are likely to lead to depression, anger, violence and other mental health problems in adolescence.

Anxiety is a part of life. A person may feel anxious before he takes a test or walks down a dark street. This kind of anxiety is useful - it can make you more alert or careful. It usually ends soon after you are out of the situation that caused it. But for millions of people, the anxiety does not go away, and gets worse over time. They may have chest pains or nightmares. They may even be afraid to leave home.

Anxiety is a natural and important emotion, signalling through stirrings of worry, fearfulness, and alarm that danger or a sudden threatening change is near. Yet sometimes anxiety becomes an exaggerated and unhealthy response.

Anxiety causes the physical effects like heart palpitations, muscle weakness and tension, fatigue, nausea, chest pain, shortness of breath, stomach ache or headaches. The external signs of anxiety are pale skin, sweating, trembling, and

pupillary dilatation. The individual with anxiety might also experience it as a sense of dread or panic.

Anxiety in extreme state will often make the person feel as if he is about to die or pass out. Anxiety also has some emotional effects over the individual who experiences it. The emotional effects include feeling of apprehension, trouble concentrating, feeling tense and anticipating the worst, irritability, restlessness, nightmares, obsessions about sensations etc. Behavioural symptoms are fidgeting, pacing, substance abuse, avoidance. Anxiety also has some of the cognitive symptoms like racing thoughts, going blank, difficulty in concentrating, negative self talk, feeling of dread, comparing you to others and difficulty in organizing thoughts.

Anxiety is an emotional and/or physiological response to known and/or unknown causes that may range from a normal reaction to extreme dysfunction (indicative of an anxiety disorder), affect decision-making and adherence to treatment, and impair functioning and/or affect quality of life. (APA 2000)

The set of phenomenological, physiological, and behavioral responses accompany concern about possible negative consequences or failure on an exam or similar evaluative situation (Zeidner 1998).One among such type of behavioural response is the examination anxiety.

Examination anxiety is a feeling which comes with being afraid of failing during an exam or evaluation. Examination anxiety hinders students' perception and success and can impede their exam preparation and exam taking. Students become afraid of making mistakes and the situation of having to sit an exam become wrought with terror. Examination anxiety can be evident in both the thinking and behaviour of students.

Examination anxiety kept on one hand, if analyzed in reality a little bit of nervousness can actually be helpful, making you feel mentally alert and ready to tackle the challenges presented in an exam. Excessive fear, on the other hand, can make it difficult to concentrate and you might struggle to recall things that you have studied.

Examination anxiety is actually a type of performance anxiety**,** a feeling someone might have in a situation where performance really counts or when the pressure on to do well. For example, a person might experience performance anxiety when he or she is about to try out for the school play, sing a solo on stage, or go into an important interview.

Examinations are a part of every curricular activity. These are often tiresome and extremely stressful for students at any level of education. Stressful feelings can alter the ability to think during examination. The sensation of having over-whelming nervousness can cause panic thoughts to the mind. This panic state causes the students to loss their ability to focus in exams. Preoccupation with stressful feelings would reduce the students' thinking and their ability.

If the anxiety is occurring when preparing for a exam or while taking a test it is termed as examination anxiety, anticipatory anxiety, situational anxiety and also as evaluation anxiety .In reality some anxiety is normal and often helpful keeping you mentally and physically alert. But when one experiences too much anxiety it can result in emotional and/or physical distress, difficulty concentrating and emotional upset.

Anyone can experience examination anxiety. Some students begin to develop this problem in high school period. Some students start to experience anxious feelings about tests in middle school when they first begin to have final exams and more

emphasis is put on earning high grades. The problem can even follow adults into the work place if they are required to take exams to get a job or a promotion.

Examination Anxiety, when it is under the control of students, they are better able to get the necessary objectivity to achieve success. Exams are important but life does not depend on it. Fighting the exam stress is an easy task if the individual can learn to relax and avoid over exaggerating and magnifying the importance to such a degree that it becomes almost impossible for the students to handle examination.

Examination anxiety involves a combination of physiological over-arousal, worry and dread about test performance, and often interferes with normal learning and lowers test performance. It is a physiological condition in which people experience extreme stress, anxiety, and discomfort during and/or before taking a test. Examination anxiety is prevalent among the student populations of the world, and has been studied formally since the early 1950s.

Examination anxiety is not the normal nervousness everyone gets before a test. It is not a learning problem. Examination anxiety is an unreasonable fear of having to prove under pressure what one has learned. It may include feelings of panic, loss of control, nervousness, helplessness, distress and doom. Examination anxiety produces an inability to think clearly in spite of adequate preparation.

Examination anxiety is caused by a combination of factors. These can include lack of Self-confidence, pressure to perform to a certain standard to please family or peers, memories of previous failures, insufficient preparation, and fear of the consequences of failure, perfectionism, and negative attitudes toward the subject caused by bad previous experiences.

Examination Anxiety need not be sustained and struggled with. Therapy can help, and for many anxiety problems, therapy is a good place to start. Certain type of therapy, such as cognitive behavioral therapy is particularly beneficial. These therapies can teaches about how to control your anxiety levels, stop worrisome thoughts, and conquer your fears.

Examination Anxiety when need to be treated, research shows that therapy is usually the most effective option. That's because anxiety therapy unlike anxiety medication treats more than just the symptoms of the problem. Therapy can help you uncover the underlying causes of your worries and fears; learn how to relax; look at situations in new, less frightening ways; and develop better coping and problem-solving skills. Therapy gives you the tools to overcome anxiety and teaches you how to use them. If adopted should be tailored to your specific symptoms and concerns According to the American Psychological Association, many people improve significantly within 8 to 10 sessions.

Cognitive Behavioral Therapy is considered a leading approach among many different types of therapy are used to treat anxiety, each anxiety therapy may be used alone, or combined with other types of therapy. Anxiety therapy may be conducted individually, or it may take place in a group of people with similar anxiety problems. Cognitive behavioral therapy (CBT) is the most widely-used therapy for anxiety disorders. Research has shown it to be effective in the treatment of panic disorder, phobias, social anxiety disorder, and generalized anxiety disorder.

The most common relaxation technique for examination anxiety is the Cognitive-Behavioural Psychotherapy .Cognitive-Behavioural Psychotherapy techniques are effective in addressing adolescent anxiety disorders. Such approaches will help the teenager examine his anxiety, anticipate situations in which it is likely to

occur and understand its effects. This can help a youngster recognize the exaggerated nature of his fears and develop a corrective approach to the problem. Moreover, cognitive-behavioural therapy tends to be specific to the anxiety problem and the teenager actively participate which usually enhances the youngster's understanding.

Guided imagery is a programme of directed thoughts and suggestions that guides the imagination towards a relaxed, focused state. It is a method of recognizing imagination as a way of knowing. Imaging is a natural language of the unconscious mind and guided imagery is a powerful modality to help a person connect with deeper resource available to them . This process is capable of bringing about profound physiological and psychological change. (Mitchell, 2004).

Guided Imagery, formed long before to learning and understanding words, lie at the core of what one thinks he is, what he believes the world is like, what he feels that he deserves, what one thinks will happen to him, and how motivated one is to take care of himself. These images strongly influence our beliefs and attitudes about how we fall ill, and what will help us to get better.

Guided Imagery healing rituals involve manipulation of these images, either overtly or covertly, and thus guided imagery can be considered one of the oldest and most ubiquitous forms of medicine. The healing rituals of various cultures that have persisted over time all have a certain level of clinical efficacy, and while we may attribute these therapeutic benefits to ‘placebo effects’, they have real and measurable effects with important implications for our understanding of the healing process.

Guided imagery is based on the concept that the body and mind are connected. Using all of the senses, the body seems to respond as though what is being imagined is real. One achieves a relaxed state by imagining all the details of a safe, comfortable place, such as a beach or a garden. This relaxed state may aid healing, learning,

creativity, and performance. It may help to feel more in control of emotions and thought processes, which may improve the attitude, health, and sense of well-being. It is a gentle powerful technique more often used to promote relaxation to provide therapeutic benefits including lowering blood pressure, managing pain, reducing stress and anxiety, and even boosting immune system.

Guided Imagery aims promoting a sense of peace and tranquillity at a stressful or difficult time in a person's life. It can be used by young children all the way up through the elderly. It is an excellent stress management option. It can be easier than exercise or even yoga for those with physical limitations. It has no risk of side effects like some medical and herbal therapies. It is similar to self-hypnosis in that it gets us into a deep state of relaxation, dealing with your subconscious mind and focuses more on extracting ideas from it.

Guided imagery techniques have been shown to be effective in helping individuals learn or modify behaviour such as learning to relax, changing and controlling their negative emotions in response to a particular situations, event or belief, preparing themselves for positive changes in numerous clinical observations.

NEED FOR THE STUDY

"Drag your thoughts away from your troubles... by the ears, by the heels, or any other way you can manage it".

-Mark Twain

Adolescence is an age of opportunity. Young people are resourceful, courageous, and well aware that their future depends not only on what they can do for themselves and to the society they live in, which poses them a great burden by the expectations of significant others and society. Hence they are more prone for anxiety, psychological issues, etc

Each teenager must navigate their way through on their journey into adulthood. Students will gain a deeper understanding of the role transitions and crises faced by young people passing through this period in their life. Early approaches to understanding adolescence put forward the view that it was always a problematic time. It was considered that teenagers would have mood swings, be temperamental, and experience emotional disturbances.

` Today 1.2 billion adolescents stand at the crossroads between childhood and the adult world. Around 243 million of them live in India. As adolescents flourish, so do their communities, and all of us have a collective responsibility in ensuring that adolescence does in fact become an age of opportunity. India is home to more than 243 million adolescents who account for a quarter of the country's population. In 2009, there were an estimated 1.2 billion adolescents in the world forming around 18 per cent of the global population. An adolescent is defined as an individual aged 10-19 by the United Nations. The vast majority of the world's adolescents 88 percent live in developing countries. The least developed countries are home to roughly 16 per cent of all adolescents. Around 54%of adolescents attending secondary education (2005-2009) in that 59% were male students and 49% were female students.

India has the largest population of adolescents in the world being home to 243 million individuals aged 10-19 years, Releasing the UNICEF's flagship 'the state of the world's children report at the Raj Bhavan in Guwahati, Patnaik said ,the country's adolescence constituted 20% of the world's 1.2 billion adolescents. Stating 9 out of 10 among the 1.2 billion adolescents live in the developing world, the Governor said, India was became to estimated 6.5 million adolescents, comprising 21.3% of the country population. In this "youthful human resource" lies in the promise and potential of becoming a healthy, strong and egalitarian society. This, however comes

with the onerous responsibility on the part of the state and council society actors, including parents and guardians ,to nurture and harness the energy and potential of these adolescents "(Assam governor J B Patnaik)

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Exam anxiety can be evident in both the thinking and behaviour of adolescents. Exam anxiety is a feeling which comes with being afraid of failing during an exam or evaluation. Exam anxiety hinders students' perception and success and can impede their exam preparation and exam taking. Adolescents become afraid of making mistakes and the situation of having to sit an exam becomes wrought with terror. Examination anxiety can be evident in both the thinking and behaviour of students. Often, test anxiety is not identified and/or treated until adolescents or teenage years. As a result, if gone untreated, these individuals can suffer devastating academic consequences. There is a need for a programme to address test anxiety in school-aged adolescents.

Exam Anxiety is a common phenomenon negatively affecting the academic, emotional, personal and social lives of almost 20% adolescents across nationalities including India. Test anxious adolescents score poor grades/marks and have poor mental health in comparison to others. It may be fatal at times. There are reports of deliberate self-harm and suicide by adolescents highlighting the need for timely intervention. This blog is an attempt to bring adolescents, parents, teachers and professionals together.

Students take many tests throughout their school years. Educators also use testing data to monitor student's, learning progress and to assess the effectiveness of their instruction and identify ways to improve it. Thus examining the impact of examinations in the life of adolescents it is evident that it has a greater induction of anxiety, as the results are used to make important decisions about students and educational programmes, including determining levels of curriculum mastery, report card grades, grade level promotions, honors, and graduation (Carter et al., 2005).

As per the statistics on 2009, 19 adolescents had killed themselves for fear of exams in Tamil Nadu and 200 had attempted to take their lives.

Erford & Moore-Thomas (2004) says that, test anxiety is a common, treatable condition that may lower student performance in up to 10% of the school-aged adolescent population. Approximately 20% of students in high school are hindered in demonstrating their ability because of test anxiety (Goonan, 2004).

A meta-analysis of 13 neurotic epidemiological studies with a total sample size of 33,572 subjects who met the following criteria; door-to-door survey, all age groups included and prevalence rate for urban and rural being available, yielded an estimated prevalence rate of 20.7% (18.7-22.7) for all neurotic disorders. The weighted prevalence rates of examination anxiety was 5.8% .This meta-analysis also reported that prevalence rates of examination anxiety was significantly higher (35.7% vs. 13.9%, $P < 0.01$) in urban communities than rural, and examination anxiety was significantly high among females (32.2% vs. 9.7%, $P < 0.01$). (Reddy and Chandrashekhara 1998).

The world Health report states that 15% of adolescents in school suffer from emotional problems due to examination. Thus abroad school is focusing very much on this aspect. The fact is that students are worried about their achievement, adolescents

in school between 13 to 19 years can be going through considerable stress because of their peer pressure, relationship or trouble at home. In fact, it is for in schools where counseling facility is available students in the eight and above approach the counsellor on their own.

Sibnath Deb and Kerryann Walsh (2010)conducted a study to understand better anxiety among adolescents in Kolkata city, India. A group of 460 adolescents (220 boys and 240 girls), aged 13-17 years were recruited to participate in the study via a multi-stage sampling technique. The data were collected using a self-report semi-structured questionnaire and a standardized psychological test, the State-Trait Anxiety Inventory. Results show that anxiety was prevalent in the sample with 20.1% of boys and 17.9% of girls found to be suffering from high anxiety. More boys were anxious than girls.

The majority of adolescents report being more stressed by tests and by schoolwork than by anything else in their lives. About 16-20% of adolescents have high test anxiety, making this the most prevalent scholastic impairment in our schools today. Another 18% are troubled by moderately-high test anxiety. In Educational Psychology,(2001 March) McDonald, Angus S. Concluded that, “Fear of exams and test situations is widespread and appears to be becoming more widespread”.

Davies, Don.(1986) Survey of 2011 post “A” level students recorded 69% experienced stress related problems in months preceding exam and during exam. These included Poor concentration, Persistent worries, Panic reactions, certain minor health problems. A study was done to assess the (a) relationship of test anxiety to academic performance among college students (b) difference in study related behaviour between high and low test anxious students and(c) differential effectiveness of study related behaviour for both groups. The subjects were 65 high and 31 low test

anxious students of first semester freshman. The grade point average for low test anxious students were 2.86 in contrast with 2.51 for the high test anxious group test was used for analysis. Results demonstrated a significant decrement in grade point average associated with test anxiety.

Individuals with low test anxiety do not worry and are able to concentrate on their test performance. Therefore, they are likely to perform better than those with high levels of anxiety. According to Woolfork, students do poorly because they are anxious and their poor performance increases their anxiety. Low and moderate levels of anxiety have been associated with significantly high test scores. A study on the relationship between test anxiety and academic performance in 4,000 undergraduate and 1,414 graduate students found a significant but small inverse relationship between test anxiety and grade point average (GPA) in both groups. Low-test-anxious undergraduates averaged a B+, whereas high test- anxious students averaged a B.

Lufi, Okasha, & Cohen (2004), reported that, much emphasis has been placed on how young children perform in an educational setting and often can affect them throughout their academic careers. Prevalence rates have been estimated that between 10% to 25-30% of school-aged adolescents experience significant levels of test anxiety.

The use of guided imagery or mental images to evoke physical benefits is perhaps the oldest form of therapy known to man. In fact, imagery is woven into the fabric of many ancient cultures' healing rituals, explained by David E. Bresler, a founder of the Academy for Guided Imagery in Malibu.

The US Veterans Administration as well as the Australian Centre for Posttraumatic Mental Health investigated the guided imagery usefulness in treating posttraumatic stress disorder (PTSD.) They reported significant improvements in the

reduction of nightmare frequency and intensity, increased positive mood states, improved sense of self and others and improved cognitive and emotional functioning.

David Fernandez.et.al.(2007) examined the assumption that phenomenological responses created by guided imagery procedure pertinent to test anxiety are topographically similar to emotional responses experienced during an actual examination. Participants were divided on facilitating versus debilitating test anxiety and exposed to subclinical doses of stimulus-response propositions that involved test-talking, fear, and physical activity using the induction technique. The results indicated that exposure to test-related guided imagery elicited a pattern of emotional responding that was different than exposure to fear or action imagery but was nearly identical to emotional responses found before examinations.

Use of guided imagery is a widely accepted practice among mental healthcare providers and is gaining acceptance as a powerful pain control tool across a number of medical disciplines. Results of a study conducted at The Cleveland Clinic Foundation and published in 1999 found that cardiac surgery patients who used a guided imagery tape prior to surgery experienced less pain and anxiety. These patients also left the hospital earlier following surgery than patients who used pain medication only.

Another study conducted by Harvard Medical School researchers found that for more than 200 patients undergoing invasive vascular or renal surgery, guided imagery controlled pain and anxiety more effectively than medication alone.

John P.Kacprowicz, (2011), conducted a study to examine the effects of a guided imagery on exam anxiety and self esteem among high achieving eighth grade students using quasi experimental pretest-post test control group design, 24 students in treatment group were exposed 15 min guided imagery sessions and it lasts for 6-7minutes on 15 consecutive school days. By using two self reporting instruments, the

friedben test anxiety scale and Rosenberg self esteem scale. These results indicate that guided imagery reduced test anxiety in high achieving eighth grade students and that lower test anxiety is associated with higher test scores.

After reviewing many literatures, based on above statistics and on the investigator's personal experience found that many bright, talented, intelligent and hard working students perform very poorly in the examination due to poor study habits and persistent examination anxiety, which interferes with their mental ability and keeps them away from doing their best. Hence, the researcher has undertaken the present study with the goal of reducing examination anxiety among adolescents.

STATEMENT OF THE PROBLEM:

A study to evaluate the effectiveness of guided imagery on "examination anxiety" among adolescents in selected schools at Madurai

OBJECTIVES:

- To assess the pre-test and post-test level of examination anxiety among adolescents in experimental group
- To assess the pre-test and post-test level of examination anxiety among adolescents in control group
- To evaluate the effectiveness of guided imagery on examination anxiety among adolescents
- To find out association between pre-test level of examination anxiety and selected demographic variables (age, sex, socioeconomic status, type of family, medium of instruction in school) of adolescents in experimental and control group

HYPOTHESIS:

All hypothesis are tested at 0.05 level of significance

- The mean post test level of examination anxiety will be significantly lower than the mean pre- test level of examination anxiety among adolescents in experimental group
- The mean post test level of examination anxiety in experimental group will be significantly lower than the mean post- test level of examination anxiety among adolescents in control group
- There will be a significant association between the pre-test level of examination anxiety and selected demographic variables (age, sex, socioeconomic status, type of family, medium of instruction in school) of adolescents in experimental and control group

OPERATIONAL DEFINITION:

EFFECTIVENESS:

In this study it refers to the outcome of guided imagery for the anxiety experience among adolescents with significant difference in the post test score of anxiety in the experimental and control group and which is measured by Westside anxiety scale.

GUIDED IMAGERY;

In this study, it refers to the therapeutic technique in which instruction will be given to the adolescents to imagine the relaxing scenes for 15-20minutes daily for 4 weeks.

EXAMINATION ANXIETY:

In this study, it refers to a feeling of increased tension, nervousness, pounding heart, stomach upset, going blank, failure and helplessness are experienced by the students pertaining to the forth- coming public examination .

ADOLESCENTS:

In this study, it refers to the adolescents who are studying 10^{th} standard with the age between 14-16 years..

ASSUMPTIONS

1. All students who are preparing for public exam will have anxiousness.
2. Individual will vary in perceiving examination anxiety.
3. Guided imagery enhances relaxation and sense of wellbeing.
4. Guided imagery prepares and motivates the students in reducing tension by sharpening their sense.

DELIMITATIONS;

The study is limited to-

- Data collection period is limited to 6 weeks
- Adolescents who are studying 10^{th} standard only
- Duration of intervention is limited to 15 – 20 minutes for 4 weeks

PROJECTED OUTCOME:

The study will provide data regarding level of examination anxiety among adolescents in selected schools at Madurai.

The study findings will help the health care professionals to plan for guided imagery which will help to reduce the examination anxiety during the examination preparation time by the adolescents thereby the students will be able to undergo exam without any fear and anxiety.

The findings on demographic variables would help to identify the factors which affect the level of examination anxiety of adolescents in selected schools at Madurai.

CONCEPTUAL FRAME WORK

This study is based upon Widenbach's helping art of clinical nursing theory. Widenbach first published her ideas in 1964 in clinical nursing. She further refined her theory in "nursing wisdom in nursing theory" published in 1970.

Widenbach's views nursing as an art based on goal directed care. Factual and speculative knowledge judgement, and skills are necessary for effective reducing practice.

Widenbach's vision of nursing practice closely parellels assessment, implementation, and evaluating steps of nursing process.

According to Widenbach nursing practice consists of identifying a patient's need for help, ministering the needed help and validating that the need for help was met. The main concepts of this study are,

1. Identifying a need for help
2. Ministering needed help
3. Validating that a need for help was met

Identifying A Need For Help:

Involves viewing the patient as a unique experiences and understanding the patient's perception of the condition. Determine the patient's need for help based on the existence of the need.

In this study it refers to, assessment of the examination anxiety among adolescents before guided imagery

Ministering the Needed Help:

It refers to provision of needed help, who are in need of help.

In this study it refers to, ministering guided imagery for experimental group, make sure that this intervention is administered very interestingly.

Validating That A Need For Was Met

Collection of evidence shows that patients need have been met, and that is functional ability has been restored as a direct result of nurses action.

In this study it refers to post assessment of level of examination anxiety after guided imagery. There will be a reduction in the level of examination anxiety among adolescents in the experimental group.

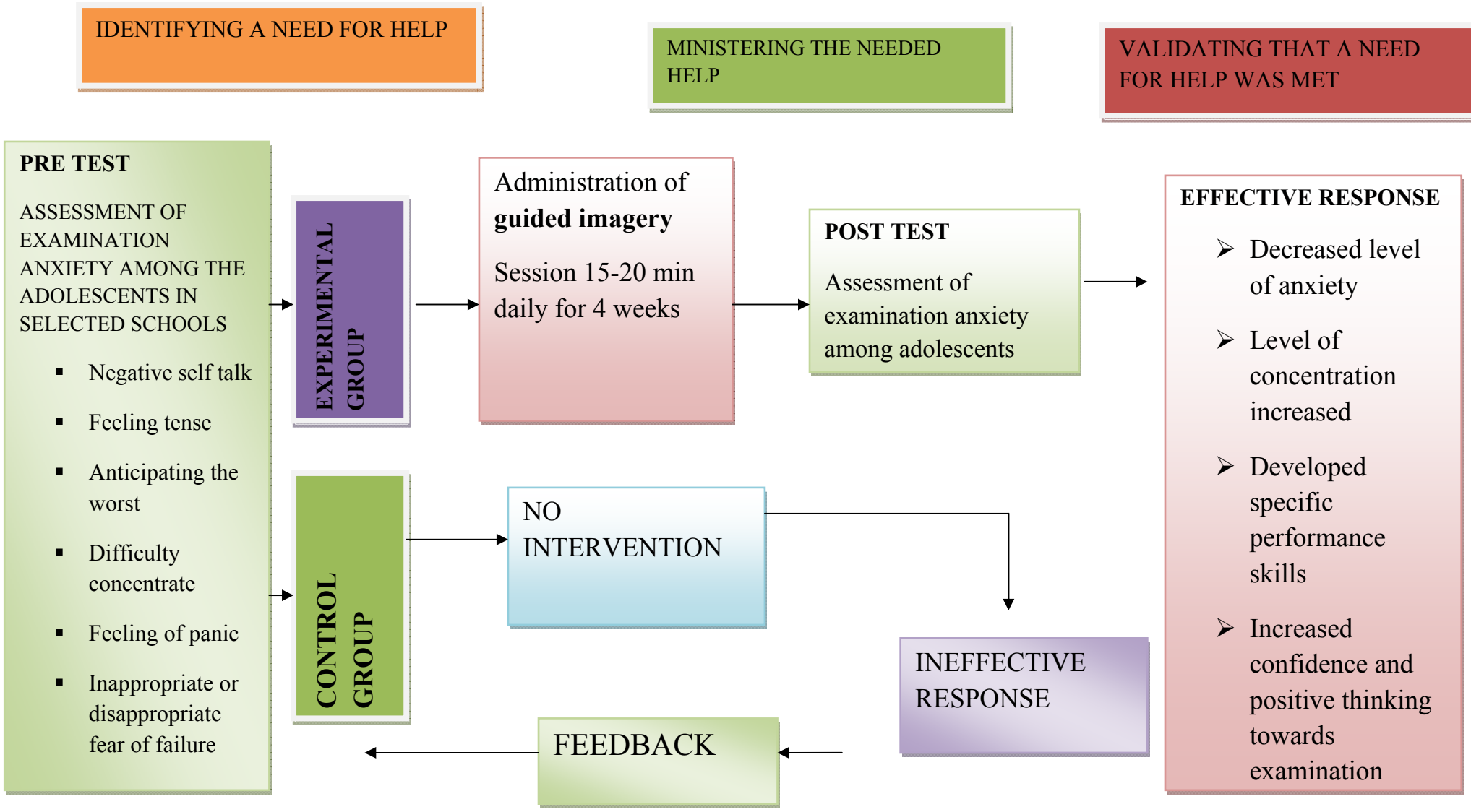

FIG 1: WIDEDENBACH'S HELPING ART OF CLINICAL NURSING

CHAPTER – II

REVIEW OF LITERATURE

Review of literature is a key step in research process. It refers to an extensive, exhaustive and systematic examination of publication relevant to research project. Literature review can serve a number of important functions in the research process like providing sources of research ideas, orientation to what is already known, information on the research approach in addition to, provision of conceptual context.

The review of literature was done from published articles, textbooks, reports and medline search.

Literature review is organised and presented under the following sections.

SECTION:1

a) Literature related to adolescents

b) Literature and studies related to adolescent's examination anxiety

SECTION:2

a) Literature related to guided imagery

b) Studies related to the effects of guided imagery on examination anxiety among adolescents

SECTION-I

LITERATURE RELATED TO ADOLESCENTS:

Overview of adolescents:

Adolescence, is described as the period in life when an individual is no longer a child, but not yet an adult, it spans the age group of 10-19 years (as citated by Marlow 2007)

The term adolescence is derived from the Latin word, "adolescere", meaning to grow, to mature. Developmentally, this amounts to"achieving an identity".

Adolescents constitute about 23% of population in India (as citated by Ghai, Guptha & Paul 2004)

The largest generation of adolescents in history, nearly 1.2 billion is preparing to enter adulthood. Adolescents account for one fifth of the world's population and have been on an increasing trend. In India they account for22.8% of the population (as on 1st March, 2000, according to the planning commission's population projection)

This implies that Around 243 million Indians are adolescents in the age group of 10-19 years. Adolescents and young people represent a significant proportion of the South Asian population. South Asia is home to about 1.2 billion young people aged 12-24 years, nearly 30% of adolescence (Censes India 2011)

DEFINITION:

Period of life from puberty to adulthood (roughly ages 12–20) characterized by marked physiological changes, development of sexual feelings, efforts toward the construction of identity, and a progression from concrete to abstract thought.

STAGES OF ADOLESCENCE:

Three main stages of adolescence can be discerned.

- Early adolescence (10-13 years):
  - Characterized by a spurt of growth and the development of secondary sexual characteristics.
- Mid adolescence (14-16 years)
  - This stage is distinguished by the development of a separate identity from parents of new relationships with peer groups and the opposite sex, and of experimentation.

- Late adolescence (17-19 years)
  - At this stage, adolescents have fully developed physical characteristics (similar to adults, and have formed a distinct identity and have well formed opinions and ideas (as citated by Ghai, Gupta & Paul 2004)

CHANGES DURING ADOLESCENCE:

Adolescence is a critical period of biological and psychological changes for both boys and girls. It is a phase of life which has recently gained recognition as a distinct phase of life with its own special needs. It is a phase of development on many fronts: from the appearance of secondary sex characteristics (puberty to sexual and reproductive maturity); the development of mental processes and adult identity, and the transition from total socio-economic and emotional dependence to relative independence.

Healthy development of adolescents is dependent on several complex factors; their socio-economic circumstances,the environment in which they live and grow, the quality of relationships with their families,communities and peer groups and the opportunities for education and employment among others (as citated by Ghai 2004)

THEORETICAL VIEWS OF ADOLESCENCE:

Biological theory:

Emphasis is on physical growth, behaviour and the environment, which influence feelings, thoughts and actions.

Psychological Theory:

According to Sigmund Freud, puberty is called the genital stage, in which sexual interest is awakened. Biological changes upset the balance between the ego and id, and new solutions must be negotiated.

Psychosocial Theory:

According to Erick &Erickson, adolescents attempt to establish an identity within the social environment. They seek to coordinate self security, intimacy, and sexual satisfaction in their relationships.

Attachment Theory:

According to Rosenstein & Horowitz, adolescents focus on the quality of attachment of defining one's vulnerability to developmental changes and sees insecure attachments as risk factors that can result in maladaptive responses to loss or trauma.

Cultural Theory:

According to anthropologist, views adolescence as a time when a person believes that adult privileges are deserved but with held. This stage ends when society gives full power and status of an adult.

Multidimensional Theory:

According to Meeks (1990), adolescence is seen as adaptation on a continuum of development. There is less emphasis on age and more on the developmental level and timing of biological, psychological and environmental influences.

LITERATURE AND STUDIES RELATED TO ADOLESCENT'S EXAMINATION ANXIETY:

Students take many examinations throughout their school years. The results are used to make important decisions about students and educational programs, including determining levels of curriculum mastery, report card grades, grade level promotions, honours, and graduation.(Carter et al., 2005)

Educators also use testing data to monitor students' learning progress and to assess the effectiveness of their instruction and identify ways to improve it (Salend, 2009)

Many students, however, experience examination anxiety. Students with examination anxiety experience high levels of stress, nervousness, and apprehension during testing and evaluative situations that significantly interfere with their performance, emotional and behavioral wellbeing, and attitudes toward school(Cizek & Burg, 2006; Huberty, 2009)

Students from culturally and linguistically diverse backgrounds also tend to have high levels of examination anxiety. Due to stereotype threat—the social and psychological pressure and beliefs that members of certain groups may feel when they are asked to perform a task they may feel that their failure may strengthen negative stereotypes.

One of the changes resulting high-stakes standardized testing in the impact of this testing on students which has resulted in an increase in test anxiety among adolescent students. Many studies have found that the number of students experiencing test anxiety is more than 33%, and that this percentage is rising. (Mulvenon et al., 2005)

Test anxiety in school-aged children has a wide range of implications, the two notable being that test anxiety has a negative effect on school performance, and that it has also been shown to be related to poor self-esteem and self-concept along with poor peer relationships . This relation between anxiety and poor performance appears to be even stronger among adolescents, which also leads to decreased or impaired social functioning and development. (Turner et al., 1993). .

DEFINITION:

Exam anxiety is a psychological and physiological response to stress resulting from being in an environment in which your performance will be assessed.

CAUSES:

Factors that contribute to the condition of adolescent exam anxiety include

- Age
- Grade level
- Overall anxiety level
- Procrastination
- Unpreparedness
- Cramming
- Lack of sleep
- Diet
- Poor time management
- Level of self-esteem

PHYSICAL SYMPTOMS;

The following is a list of the common symptoms of examination anxiety:

- Sweating palms
- Some people will perspire
- Raised heart rate
- Trembling
- Dry mouth
- Upset stomach
- Muscle tension

MENTAL SYMPTOMS:

The symptoms that have the greatest effect on the adolescent would have to be those that are derived from the nervousness. Some mental symptoms include:

- Difficulty reading and understanding concepts
- Difficulty organizing thoughts
- Difficulty remembering major topics, words and concepts
- Mental block that can cause one to "go blank"
- Remembering the answers only after the test is complete
- Difficulty concentrating
- A general feeling of panic
- Inappropriate or disproportionate fear of failure

MANAGEMENT;

- Study, study, study!
  - Learn your material thoroughly
- Learn and practice good time management and avoid:
  - Laziness
  - Procrastination
  - Day dreaming
- Build confidence by studying throughout the semester
  - Avoid cramming the night before the exam
- Use relaxation techniques
  - Taking long deep breaths to relax the body and reduce stress
  - Guided visualization
  - Muscle relaxation

- Eat food with nutritional value, especially the day of an exam
- Get a good night's sleep
- Stay away from negative conversation

TIPS FOR HANDLING EXAMINATION ANXIETY:

- **Be prepared**. Develop good study habits. Study at least a week or two before the exam, in smaller increments of time and over a few days .Try to simulate exam conditions by working through a practice test, following the same time constraints.
- **Develop good test-taking skills.** Read the directions carefully, answer questions you know first and then return to the more difficult ones. Outline essays before one begins to write.
- **Maintain a positive attitude**. Remember that your self-worth should not be dependent on or defined by a test grade. Creating a system of rewards and reasonable expectations for studying can help to produce effective studying habits. There is no benefit to negative thinking.
- **Stay focused.** Concentrate on the test, not other students during your exams. Try not to talk to other students about the subject material before taking an exam.
- **Practice relaxation techniques**. If you feel stressed during the exam, take deep, slow breaths and consciously relax your muscles, one at a time. This can invigorate one's body and will allow you to better focus on the exam.
- **Stay healthy**. Get enough sleep, eat healthfully, exercise and allow for personal time. If you are exhausted—physically or emotionally—it will be more difficult for one to handle stress and anxiety.

- **Visit the counselling centre**. Schools are aware of the toll exams can take on students. They have offices or programs specifically dedicated to helping you and providing additional educational support so that one can be successful.

STUDIES RELATED TO ADOLESCENT'S EXAMINATION ANXIETY:

Sila Ay (2010),conducted a study to examine the foreign language anxiety of young adolescent students in relation to language skills at different levels. Data was collected from 160 Turkish participants who are learning English as a foreign language by the use of a modified version of the Foreign Language Classroom Anxiety Scale (FLCAS). Results of this study revealed that the foreign language anxiety experienced by young adolescent students differs in relation to levels of instruction and to basic language skills

Obi Joy Sylvia **(**2012**)** conducted a study on the effects of Self Instruction and Study Skills Techniques on reducing test anxiety among secondary school adolescents in Awka South Local Government Area of Anambra state. The population for this study was made up of 369 students with test anxiety in junior secondary school in Awka South Local government Area. The sample for the study was 107 junior secondary School students with test anxiety. The speilberger test anxiety inventory was used for data collection. Results showed that Self Instruction and study skills techniques have positive effects on reducing test anxiety of secondary school adolescents. Self Instruction technique has more positive effect than Study Skills Technique on reducing test anxiety of secondary adolescents, while Study Skills Technique has more retention effect than Self Instruction Technique. consellors should adopt the two techniques in reducing test anxiety among secondary school students.

Cunha M and Paiva MJ (2012) conducted the study to explore test anxiety in adolescent students. Participants in this study were 449 high school students, 211 boys and 238 girls, with a mean age of 16.28 years. These participants completed a battery of self-report questionnaires composed by the Portuguese versions of Test Anxiety Inventory (TAI), Child Acceptance and Mindfulness Measure (CAMM), Forms of Self-Criticizing/Attacking and Self-Reassuring Scale (FSCRS), and the Social Anxiety and Avoidance Scale for Adolescents (SAASA). Results showed that gender, self-criticism and competencies for acceptance and mindfulness had a significant and an independent contribution on the prediction of test anxiety.

Salam Khaliliaqdam and Payman Rezvani (2005) conducted a study to evaluate The Effect of Socio-affective Strategies on Students' Test Anxiety across Different Genders .The subjects of the study were 100 Iranian students, including 56 male and 44 female, aged 15-16. The students were selected randomly and categorized into four groups. The experimental groups and the control groups comprised one male class and one female class .In experimental groups, the teacher used socio-affective strategies. The results showed that there is a significant difference between experimental and control groups in terms of level of anxiety. Another finding of the study revealed that the difference between test anxiety of male and female was significant.

Chatterjee and Walsh (2010) conducted a study to understand better anxiety among adolescents in kolkata city. The study also examined adolescents' perceptions of quality time with their parents. A group of 460 adolescents (220 boys and 240 girls), aged 13-17 years were recruited to participate in the study via a multi-stage sampling technique. The data were collected using a self-report semi-structured questionnaire and a standardized psychological test, the state-trait anxiety inventory.

Results showed that anxiety prevalent in 20.1% of boys and 17.9% of girls was found to be high anxiety. More boys were anxious than girls ($p<0.01$) also the other results showed that a substantial proportion of the adolescents perceived they did not receive quality time from fathers (32.1%) and mothers (21.3%). A large number of them also did not feel comfortable to share their personal issues with their parents (60.0% for fathers and 40.0% for mothers).

Swanson and Howell (1996) conducted a study to explain the connections between test anxiety and learning disability.sample comprised of 82 adolescents; Results revealed a significant positive relationship between test anxiety and cognitive interference and a significant negative relationship between test anxiety and study habits and also suggests that cognitive interference was the most powerful predictor of test anxiety.

SECTION II

a) LITERATURE RELATED TO GUIDED IMAGERY

The time to relax is when you don't have time for it.

- Jim Goodwin and Sydney J. Harris.

Imagination is important in healing because it seems to have a much more direct link to bodily functions than spoken words. Imagery involves thinking in thought that have sensory qualities, in other words, in thought that one sees, hears, smells, or feels inside. This body mind connection, mediated largely through emotions, is one of the powers of imagination that closely links it to healing. When one shift his state of being from anxious, depressed or uncomfortable, to one that is quieter, happier, and more comfortable, there are physiological changes that accompany that shift. The calmer, more energized state that follows this shift is one

that is often associated with healing. It allows the body to focus its attention on healing rather than spending its energy combating imagined worries and woes

MEANING

Guided imagery means **"visualizing", "seeing in the mind's eye", "hearing in the head", "imagining the feel of".**

DEFINITION

Guided Imagery is a technique (as a series of verbal suggestions) used to guide another person or oneself in imagining sensations and especially in visualizing an image in the mind to bring about a desired physical response (as a reduction in stress, anxiety, or pain)

- (Merriam Webster)

Guided Imagery refers to a wide variety of techniques, including simple visualization and direct suggestion using imagery, metaphor and story-telling, fantasy exploration and gameplaying, dream interpretation, drawing, and active imagination where elements of the unconscious are invited to appear as images that can communicate with the conscious mind.

- (Academy For Guided Imagery)

BENEFITS:

- Changing or controlling negative emotions in response to a particular situation, event or belief
- Preparing themselves for changes they are likely to have to deal with the future
- Coping with difficult situation
- Becoming more motivated
- Listen to your inner voice for direction, comfort, or inspiration

- Center yourself to appreciate the miracles and gifts in your life
- Spark your creativity and intuition
- Boost your immune system and improve health
- Lower stress
- Lift depression or anxiety
- Think more clearly
- Relax your mind, body, and spirit
- Increase your efficiency and productivity

PRINCIPLES OF GUIDED IMAGERY

Guided imagery works because of three very simple, common-sense principles.

The Mind-Body Connection

Guided imagery is so powerful because the body cannot differentiate between reality and imagination. The body will react to an imagined event just as it would to a real event. This is a powerful tool in healing. If the mind cues the body through images that evoke sensory stimulation the body will react. Sensory images are the true language of the body, a language it understands without question.

The Altered State

Guided Imagery provides the opportunity to reach an altered state of consciousness. A state that allows for access to internal resources of incredible strength and power. Although all fall in and our of altered states of consciousness all day (daydreaming, is a good example), the ability to consciously apply it is a powerful tool for healing.

Locus of Control

Often situations we are faced with leave us feeling out of control and hopeless. Guided Imagery provides the opportunity to take that back. It is an activity that is internally driven and the user is in charge of what happens when, and where. This allows for a feeling of control and empowerment over our bodies as well as stressful situations.

8 KINDS OF GUIDED IMAGERY:

There are many kinds of effective healing imagery, and, because people respond differently to different kinds, it's good to be aware of the range of possibilities.

Here are eight different categories of guided imagery

Feeling State Imagery

This is simple imagery that changes mood, such as seeing oneself in ones favourite place, or recalling a happy, peaceful time. Any imagery that can genuinely elicit feelings of love, care, safety and gratitude, will crowd out feelings of fear, anxiety, resentment and anger. All of this qualifies as feeling state imagery.

End State Imagery

This is imagery that uses for its content any desired outcome or goal, in all it's realistic particulars. So imagining a strong, cancer-free body; a perfectly played, confident, relaxed, focused game of tennis; or the sound of a perfectly registered high C just before singing it, would all be end state imagery, sometimes called "mental rehearsal" in hypnosis.

Energetic Imagery

This is imagery, taken from Ayurvedic and Chinese medicine, as well as quantum physics, that uses the notion of plentiful, coherent, free-flowing, unblocked

energy as the underlying dynamic of good health. Illness, in this paradigm, would be seen as stuck energy, or energy that is withheld from the general flow. This can be imagined as moving dots, a kind of sound, or an internal feeling of motion.

Cellular Imagery

This imagery focuses on the healthy interaction of the cells, and requires accurate technical knowledge, so it isn't for everyone. For asthma, it would be imagining the mast cells being less reactive to neutral particles floating by; for diabetes, it would be insulin attaching to energy hungry cells, so they can take in glucose from the bloodstream; and so on.

Physiological Imagery

This is imagery that focuses on larger healing processes in the body, such as sensing the widening, softening and clearing of the arteries for heart disease; imagining the feel of tumors shrinking in the body with cancer; and seeing the opening of swollen, constricted passageways in the lungs for asthma. This too requires accurate knowledge of how the body naturally operates to heal each condition.

Metaphoric Imagery

This is imagery that works with symbols instead of concrete reality, such as seeing a flower opening its petals as a metaphor for enhanced creativity blossoming again; or seeing a tumor as an enemy encampment, being decimated by a powerful supply of tanks, missiles and guns; or sensing insulin "keys" unlocking the "doors" to hungry cells for people with diabetes.

Psychological Imagery

This is imagery that specifically addresses a person's psychological issues by providing corrective emotional content. So, for instance, it might consist of imagining

being surrounded by loving friends and allies to interrupt a sense of isolation and despair; or seeing oneself through kind and loving eyes, for someone who is relentlessly self-attacking; or perceiving the presence a beloved, recently lost parent to alleviate grief.

Spiritual Imagery

This imagery evokes the wider perspective and peaceful or transcendent feelings provided by mystical states of consciousness and prayer. This might involve sensing assistance from angels, guides, power animals, God, or specific religious figures and symbols; or imagery that fosters a sense of oneness and connection with all things; or any imagery that deeply opens the heart.

ELEMENTS OF GUIDED IMAGERY

To be effective, like any skill, imagery needs to be developed and practiced regularly. There are four elements (4 Rs)

1. Relaxation

Having a relaxed mind and body so you can become involved in the imagery exercises, feel your body moving and experience generated. It may help to use a relaxation technique prior to imagery training.

2. Realism

Create imagery so realistic you believe you are actually executing the skill. In order to obtain the most incorporate clarity, vividness, emotion, control and a positive outcome into ones imagery:

Clarity- make the images as vivid as possible include color

Vividness- incorporates as many of senses as possible into one's imagery so the scene is as clear and realistic as real life itself.

Emotion- tries to include emotional feelings in one's images. Refresh one's own memory constantly by emphasizing specific sensory awareness.

Control- breaks down the images into small components and visualizes those components.

Positive outcome- this is essential, "One achieve what he believe"

3. Regularity

Spending between 3-5 minutes on imagery seems to be most effective. It should include in training and time outside of training should be spent on imagery (10-20 minutes a day)

4. Reinforcement

The writing of imagery scripts will help one to plan the content and timing of one's imagery training.

BIOLOGIC MECHANISM OF ACTION

Imagery has profound physiological consequences, and the body tends to respond to imagery as it would to a genuine external experience. For example, if one vividly imagine slowly sucking on the sour, tart slice of a fresh, juicy lemon, He will soon begin to salivate. Another example is sexual fantasy and its attendant physiologic responses.

Imagery has been shown to affect almost all major physiologic systems of the body, including respiration, heart rate, blood pressure, metabolic rates in cells, gastrointestinal mobility and secretion, sexual function, cortisol levels, blood lipids, and even immune responsiveness.

With respect to producing specific physiological changes that can promote healing, guided imagery represents an important alternative to pharmacotherapy with much greater safety and far fewer complications, precautions, and contra-indications

STEPS OF GUIDED IMAGERY:

There are generally three steps to guided imagery i.e relaxation, visualization and positive suggestion.

Step – I (Relaxation Stage)

Instruct the participants to sit on chairs, close their eyes and simply become aware of their breathing. With each exhalation, allow the tension in their body to release, as they become increasingly relaxed and comfortable. Instruct them to bring their awareness to forehead and let go of any tension they may feel there. Continue progressive up your legs, gently relaxing the muscle in your calves, thighs, hips, lower back etc.,

Step – II (Visualization Stage)

The entire relaxation phase can take 15-20 minutes. Once they feel relaxed they were asked to open their eyes and suggested to view a video clipping of pleasant natural sceneries that was projected. Following that they were again asked to close their eyes and guided by the researcher's voice commands they began to visualize a scene, visualize a water fall on a mountain, imagine first what this looks like; the rushing water, the stream flowing from it, the size and thickness of the trees all around, the sky above and the sun filtering through the branches and so on. Then imagine how this place would smell-damp and musty or fragrant pine.

They were instructed also to concentrate on the sounds they would hear if they were there: the water rushing over rocks, the hush of the wind rising and then quieting down, birds singing. How does the ground feel beneath your feet? It is rocky and rough, a soft and smooth from pine needles or moss? Look up and down and all around. Notice what you see and how it makes you feel. Say to yourself. "I am

relaxed, my anxiety is relieved tension has flowed out of my body, I can study well and will succeed in my exams and come with flying colours".

Step – III (Positive Suggestion)

When they have thoroughly visualized that place, they were asked to open their eyes but stay in the same comfortable position. At last they were advised to continue to breathe smoothly and rhythmically and take a few movements to experience and enjoy your relaxation.

Studies related to the effects of guided imagery on examination anxiety among adolescents:

Astrid Gregor (2005) conducted a study to assess the factors affecting examination. The study was a school-based initiative, evaluating intervention strategies to help secondary pupils with the self-management of their examination anxiety. The study compared the effects of a range of approaches on participants' performance in the GCSE (General Certificate of Secondary Education) examinations, on their self-reported examination anxiety and on their behaviour. Data suggested that interventions using cognitive behavioural approaches combined with relaxation helped pupils to improve their examination performance in Maths. Results encourage the view that school-based programmes using mixed interventions may be effective in the prevention of excessive examination anxiety and in the improvement of examination performance if compared to single interventions, but show variations depending on the curriculum subject.

Melanie Miller and Jerome Morton (2005) conducted a study to validate the use of an anxiety-reduction protocol. The protocol included tense-release sequences, positive expectations, and imagined interest in each of eight academic learning. Thirty-six fifth-grade students identified as having high test anxiety were randomly

assigned to an Intervention group or a non-participant Control group. The Intervention group reviewed a 31-minute recorded anxiety-reduction protocol on five separate occasions over a span of four months. Results showed substantial stability in these scores over the academic year and a seven percentile gain in test scores for the Intervention group

Sapp Marty (1994) Investigated the effects of guided imagery on reducing the worry and emotionality components of test anxiety. 43 college students receiving guided imagery were compared to 45 controls on the worry and emotionality components of test anxiety and academic achievement. The guided imagery showed significant reductions in levels of worry and emotionality, as well as a significant increase in academic performance

Mary Jane Esplen Ellen Hodnett (1999) conducted A Pilot Study Investigating Student Musicians' Experiences of Guided Imagery as a Technique to Manage Performance Anxiety. The study consisted of a one-arm pre-post design involving 21 music students who were given an intervention of guided imagery and descriptive data from 45 students who declined the intervention but provided information about their experiences of performance anxiety. Based on the 21 individuals participating in the intervention, a paired t-test for pre- and post-intervention anxiety scores demonstrated a significant decrease in the post-intervention anxiety levels

Speck BJ (1992) examined the effect of guided imagery upon the anxiety of baccalaureate nursing students learning to perform their first injection. The Quasi-experimental post test design used for treatment group and control group of subjects who were first semester undergraduate nursing students .Anxiety was measured using state-Trait anxiety inventory. Result indicated statistically significant lower anxiety

level by self report. p=.008,in the experimental group which revealed that guided imagery reduces self –reported anxiety levels in nursing students.

Clare Marie Lewandowski (2011), examined the effects of guided imagery on mood and anxiety among college students. The sample involved 107 college students. The effects of a single session of non directive guided imagery were examined through a repeated measures pre test and post test design with three experimental conditions was adopted. Anxiety was measured using self report Questionnaire .Results revealed that guided imagery significantly decreased anxiety and negative effect.

Yin-Hsing Tseng et.al., (2011) published a study in journal of youth studies and the purpose of the study was to explore the theoretical basis of applying guided imagery to reduce students examination anxiety. The core of the training programme includes progressive relaxation training, guided imagery, and positive self-talk. It is hypothesized that students will reduced exam anxiety by practicing the skills learned in the programme.

Wachelha et al., (1999) conducted a study to reduce test anxiety level in high school and junior college students with learning disabilities .Treatment of cognitive behavioural treatment comprising of progressive muscle relaxation, guided imagery and self instruction was given for 8 weeks. Result revealed that cognitive behavioural treatment reduce test anxiety and improve study skills and academic self esteem compared to a control group. This results shows significant improvement in the treatment group.

Jeanne B.Hanish (2013) conducted a study to determine whether learning and practicing mindfulness techniques particularly guided imagery helps reduce symptoms of anxiety in children and adolescents. The literature review consists of 45

peer reviewed articles found in the Ebscohost data base .The research was narrowed to 15 closely related articles. These findings suggested that guided imagery as a self regulation treatment as well as prevention against childhood anxiety.

Prato et al., published a study in Academic journal article from Nursing education perspectives. This study was Biofeedback-assisted relaxation training to decrease exam anxiety in nursing students and in this study anxiety measured through Spielberger's test anxiety inventory and monitoring peripheral skin temperature, pulse and respiration rates during the training. Participants were introduced to diaphragmatic breathing, progressive muscle relaxation and autogenic training. This results showed that significant changes occurred in respiratory rates and skin temperatures during the diaphragmatic breathing session and respiratory rates and peripheral skin temperatures during progressive muscle relaxation session and respiratory and pulse rates, and peripheral skin temperatures during the autogenic sessions. This results revealed that no significant difference was noted between the first and second Test anxiety Inventory.

CHAPTER - III

METHODOLOGY

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them.

- C.S.KOTHARI

This chapter deals with the different steps, which were undertaken by the investigator. It includes the description of the research approach, research design, setting, population, the sample and the sample size, the sampling technique, criteria for sample selection, the selection of tool, the development and description of tool, scoring, the pilot study, the data collection procedure and the plan for data analysis.

RESEARCH APPROACH

A Quantitative approach was used for this study to assess the effectiveness of guided imagery on examination anxiety among adolescents in selected school at Madurai.

RESEARCH DESIGN

True - experimental pre test, post test control group design was used for this study.

Group	**Measurement of dependant variables(pre test)**	**Manipulation of independent variables**	**Measurement of dependant variables(post test)**
Experimental group	O_1	X	O_2
Control group	O_3		O_4

X	-	Guided imagery (Intervention)
O_1	-	Pretest level of examination anxiety in experimental group.
O_2	-	Posttest level of examination anxiety in experimental group
O_3	-	Pretest level of examination anxiety in control group
O_4	-	Posttest level of examination anxiety in control group

VARIABLES

Independent variable - Guided imagery

Dependent variable - Examination anxiety

SETTING OF THE STUDY

The study was conducted in two schools. They are Sethurajan Padma Matriculation Higher Secondary School and Seventh day Adventist matriculation higher secondary school. Sethurajan Padma Matriculation Higher Secondary School was selected for the experimental group, this school is located at Jaihindhpuram ,Madurai. It is 5kms away from our college. The total strength of the school is 560 and it offers education from LKG to 12th standard. It is a co education school and has all the basic facilities like good light, ventilation, drinking water, bathroom facilities and sports and recreational activities. Seventh day Adventist matriculation higher secondary school was selected for the control group, this school is located at Chokikulam, Madurai. It is 2kms away from our college. The total strength of the school is 650 and it offers education from LKG to 12th standard. It is a co education school and has all the basic facilities like good light, ventilation, drinking water, bathroom facilities and sports and recreational activities

STUDY POPULATION

The target population includes all students who are studying 10th standard in selected schools at Madurai.

SAMPLE

Samples were the adolescents who are studying 10th standard with examination anxiety and those who fulfil the inclusion criteria in selected schools at Madurai.

SAMPLE SIZE

PHASE: I

1) 38 samples were screened to identify examination anxiety in experimental group using Westside Anxiety Scale, it is found that 35 samples had examination anxiety
2) 65 samples were screened to identify examination anxiety in control group using Westside Anxiety Scale, it is found that 45 samples had examination anxiety

PHASE: II

1) Out of 35 ,in experimental group 30 were selected randomly
2) Out of 45 ,in control group 30 were selected randomly

SAMPLING TECHNIQUE

Randomly the schools were assigned to the experimental and control goup.

CRITERIA FOR SAMPLE SELECTION

The study samples were selected by following the inclusion and exclusion criteria.

Inclusion criteria:

- Students who are studying and 10th standard going to appear for public exam
- students who has examination anxiety
- Students who are willing to participate in this study.

Exclusion criteria:

- The students who are all not available at the time of data collection
- The student who fell sick at the time of data collection
- Students who has been diagnosed and already in treatment of (asthma attacks triggered by stress or anxiety ,seizures triggered by stress or anxiety ,cardiac condition or related conditions)
- Students who are practising any other relaxations techniques.

RESEARCH TOOL AND TECHNIQUE

The research tool consists of

PART I: Demographic Profile

It consists of demographic variables of adolescents which includes age, sex, religion, educational status of father, educational status of mother, occupation of father, occupation of mother, family monthly income, types of family, educational performance in school, attendance in school, residence, dwelling place of the student, extracurricular activities and healthy status.

PART II:

West side anxiety scale.

It developed by Richard Driscoll, Ph.D., American Test Anxiety Association. The tool consists of 10 items and it is a 5 point likert scale

Scoring And Interpretation

Each item in the Westside Test Anxiety Scale has the following responses as:

5 - Extremely or always true

4 - Highly or usually true

3 - Moderately or sometimes true

2 - Moderately or sometimes true

1 - Not at all or never true

After obtaining the score for each item, calculate the sum of 10 questions and divide the sum by 10. This is the obtained Test Anxiety score (50).

The score obtained was interpreted as follows

1.0—1.9 - Comfortably low test anxiety

2.0—2.5 - Normal or average test anxiety

2.5—2.9 - High normal test anxiety

3.0—3.4 - Moderately high (some items rated 4=high)

3.5—3.9 - High test anxiety (half or more of the items rated 4=high)

4.0—5.0 - Extremely high anxiety

TESTING OF THE TOOL

Validity:

The Westside scale has high face validity, in that it includes the highly relevant cognitive and impairment factors. The 0.44 coefficient of validity is high by current standards.

The present tool was given to 7 experts in the field of psychiatric nursing, psychiatrist and psychologist, The tool was evaluated by the experts for appropriateness, adequacy, relevance, and completeness. The instrument was refined and finalized after establishing the validity.

Reliability:

The reliability of the tool was elicited by spilt half method with the Karl Pearson co-efficient of correlation value for the tool were r=0.9, which shows that the tool is highly reliable.

INTERVENTION:

Device such as the LCD projector and screen for administering guided imagery was arranged in place. All 30 adolescents comprising the experimental group were assembled in a hall which was calm and conducive. Before the session, rapport was maintained with the students followed by explanation about benefits and techniques of guided imagery. Next, the participants were allowed to sit on chairs and asked to close their eyes and suggested to be aware of their breathing. With each exhalation, the participants were advised to allow the tension in their body to release so that, they became relax and comfortable. Along with breathing the participants were instructed to bring their awareness to forehead and let go of any tension they may feel. Followed by this, they were also instructed to relax their legs, gently relaxing the muscles in their calves, thighs, hips, and lower back etc.

The entire session, may take 15-20 minute. Once they feel relax, they were asked to open they eyes. Next the students were suggested to view video clipping of pleasant natural sceneries that was projected. After viewing the clipping the participants were again instructed to close their eyes and instructed to visualize the pleasant scenes.eg. Calm beach, water fall, green grass land etc. And then, asked the participants to imagine the smell and other pleasant experience of the sceneries as they were in the place of sceneries.eg. Water rushing over rocks, hush of the wind, sounds of birds etc. This entire imagination was guided with the researcher's voice command and positive affirmations of self by the participants such as I am relaxed, Anxiety is relieved, I can study well, Succeed in exams, and Come out with flying colours.

After the end of guided imagery process, the participants were asked to open their eyes and stay in same comfortable position and they were advised to continue to breathe smoothly and rhythmically and take a few movements to experience and enjoy the relaxation. This guided imagery was administered to experimental group for 15 – 20 minutes from Monday to Friday for four weeks.

PILOT STUDY

Pilot study was conducted to determine the feasibility of the study. It was conducted for 6 samples in selected school. Data was analysed to find out the suitability of statistics. The findings revealed that the study was feasible.

DATA COLLECTION PROCEDURE

The data was collected among 60 students who are studying 10th standard, in which 30 From Sethuraj Padma Matriculation Higher Secondary School and 30 from Seventh day Adventist Matriculation Higher Secondary School at Madurai. The official permission was obtained from chairman and principals of selected schools at Madurai.

The investigator initially established rapport with the subjects. The samples were selected by using simple random sampling technique. The purpose of the study was explained to the subjects and consent was obtained from them.

Westside test anxiety scale was administered scants to assess the Examination Anxiety. Guided Imagery Technique was taught to the students for 15-20 minutes daily, for 4 weeks to reduce the examination anxiety only to the experimental group. The post-test was conducted in 6 weeks of the intervention during the midterm examination.

TABLE I: schematic representation of data collection procedure

WEEKS	DATA COLLECTION PROCEDURE
1st week	Pre-test for experimental and control group
2nd week	Intervention
3rd week	Intervention
4th week	Intervention
5th week	Intervention
6th week	Post test for experimental and control group

PLAN FOR DATA ANALYSIS

Data analysis helps the researcher to organize, summarize, evaluate, interpret, and communicate the numerical facts. For the present study the data collected from the participants were analyzed using both descriptive and inferential statistical methods.

Descriptive Statistics:

Frequency, percentage, means and standard deviation was used for analysis of pre-test and post-test assessment.

Inferential Statistics:

- Pre and post-test difference was analyzed by using paired t –test.'
- Independent 't' test was used to determine the post test level of examination anxiety in experimental and control group.
- Association between demographic variables and pre-test level of examination anxiety were analyzed by using chi-square test.

PROTECTION OF HUMAN RIGHTS

The pilot study and the main study were conducted only after the approval of the dissertation committee of the college. Purpose of the study was explained to the samples. Informed consent of the subjects was taken verbally, confidentiality of subjects were maintained.

CHAPTER - IV

DATA ANALYSIS AND INTERPRETATION

Analysis is a process of organising and synthesising data in such a way that research question can be answered and hypothesis tested.

- Polit and Hungler

This chapter deals with the analysis and interpretation of the data. The data was collected through standardized scale among 60 adolescents who are studying 10th standard regarding the effectiveness of guided imagery technique on examination anxiety. This result was computed using descriptive and inferential statistics based on the objectives of the study.

The data collected were arranged and organised under the following sections,

Section: I

1. Describes the frequency and percentage distribution of demographic variables of adolescents in experimental and control group

Section: II

2. Describes the level of examination anxiety among adolescents in experimental group
3. Describes the level of examination anxiety among adolescents in control group

Section: III

4. Shows the comparison of mean pre test and post test level of examination anxiety among adolescents in the experimental group
5. Shows the comparison of mean pre test and post test level of examination anxiety among adolescents in the Control group

6. Portrays the comparison of mean post test level of examination anxiety among adolescents in the experimental and control group

Section: IV

7. Describes the association between the selected demographic variables and pre test level of examination anxiety among adolescents in experimental group.
8. Describes the association between the selected demographic variables and pre test level of examination anxiety among adolescents in control group.

SECTION – I

Table 1:

Frequency and percentage wise distribution of adolescents based on their demographic variables both in experimental and control group. n = 60

Demographic Variables	Experimental Group (n = 30)		Control Group (n = 30)		Total (n = 60)	
	f	%	f	%	f	%
Age: (in years)						
➢ 14	14	46.6	7	23.3	21	35
➢ 15	15	50	17	56.6	32	53.33
➢ 16	1	3.33	6	20	7	11.66
Sex:						
➢ Male	22	73.3	21	70	43	71.66
➢ Female	8	26.6	9	30	17	28.33
Religion:						
➢ Hindu	26	86.6	17	56.6	43	71.66
➢ Muslim	2	6.6	7	23.3	9	15
➢ Christian	2	6.6	6	20	8	13.33
Father's Educational Status:						
➢ Illiterate	2	6.66	2	6.66	4	6.6
➢ Elementary school	4	13.3	10	33.3	14	23.3
➢ High/Higher secondary	15	50	10	33.3	25	41.6
➢ Diploma / Graduate	8	26.6	7	23.3	15	25
➢ Post Graduate	1	3.33	1	3.33	2	3.33
Mother's Educational Status:						
➢ Illiterate	3	10	6	20	9	15
➢ Elementary school	4	13.3	9	30	13	21.6
➢ High/Higher secondary	17	56.6	10	33.3	27	45
➢ Diploma / Graduate	5	16.6	5	16.6	10	16.6
➢ Post Graduate	1	3.33	0	0	1	1.66

Table cont…

Demographic Variables	Experimental Group (n = 30)		Control Group (n = 30)		Total (n = 60)	
	f	%	f	%	f	%
Father's Occupation:						
➢ Coolie	5	16.6	6	20	11	18.3
➢ Business	6	20	7	23.3	13	21.6
➢ Farmer	0	0	4	13.3	4	6.66
➢ Govt. Job	3	10	5	16.6	8	13.3
➢ Private job	15	50	8	26.6	23	38.3
➢ Un employee	1	3.33	0	0	1	1.66
Mother's Occupation:						
➢ Coolie	2	6.66	2	6.66	4	6.66
➢ Business	1	3.33	0	0	1	1.66
➢ Govt. Job	4	13.3	4	13.3	8	13.3
➢ Private job	1	3.33	0	0	1	1.66
➢ Housewife	22	73.3	24	80	46	76.6
Family Monthly Income:						
➢ Less than Rs.10,000	20	66.6	17	56.6	37	61.6
➢ Rs.10,001 – 20,000	7	23.3	11	36.6	18	30
➢ Rs.20,001 – 30,000	1	3.33	2	6.6	3	5
➢ Rs.30,001 – 40,000	1	3.33	0	0	1	1.66
➢ Greater than Rs.40,000	1	3.33	0	0	1	1.66
Type of Family:						
➢ Nuclear family	25	83.3	26	86.6	51	85
➢ Joint family	4	13.3	2	6.6	6	10
➢ Extended family	1	3.33	2	6.6	3	5

Demographic Variables	Experimental Group (n = 30)		Control Group (n = 30)		Total (n = 60)	
	f	%	f	%	f	%
Educational performance in School:						
➢ > 90%	6	20	12	40	18	30
➢ 81 – 90%	10	33.3	9	30	19	31.6
➢ 71 – 80%	2	6.66	6	20	8	13.3
➢ 61 – 70%	4	13.3	3	10	7	11.6
➢ 51 – 60%	4	13.3	0	0	4	6.66
➢ < 50%	4	13.3	0	0	4	6.66
Attendance in School:						
➢ Regular	30	100	28	93.3	58	96.6
➢ Irregular	0	0	2	6.66	2	3.33
Residence:						
➢ Urban	30	100	26	86.6	56	93.3
➢ Rural	0	0	4	13.3	4	6.66
Dwelling place of the student:						
➢ Hostel	0	0	0	0	0	0
➢ Home	30	100	30	100	60	100
Extracurricular Activities:						
➢ Indoor activities	15	50	14	46.6	29	48.3
➢ Outdoor activities	15	50	16	53.3	31	51.6
Health Status:						
➢ Chronic disease	0	0	0	0	0	0
➢ Acute disease	0	0	1	3.3	1	1.6
➢ Nutritional problems	6	20	1	3.33	7	11.6
➢ Disabilities	0	0	0	0	0	0
➢ Healthy	24	80	28	93.3	52	86.6

Table 1 shows the frequency and percentage distribution of adolescents based on their demographic variables both in experimental and control group.

In experimental group, most 15(50%) of the adolescents belonged to the age group of 15years and 17 (56.6%) in control group, and 14(46.6%) of the adolescents belonged to the age group of 14years and 7(23.3%) in control group and only 1(3.33%) adolescent belonged to 16years in experimental group but in control group 7(11.6%) belonged to 16years.

In experimental group, male and female adolescents constituted 22(73.3%) and 8(26.6%) respectively and in control group male and female adolescents constituted 21(70%) and 9(30%).

Regarding religion, Most of the adolescents were from Hindu background both in experimental 26(86.6%) and in control group 17(56.6%)

Considering the father's educational status, 15(50%) had completed high/higher secondary in experimental group, where as in control group 10(33.3%) had high/higher and elementary school.

Considering the mother's educational status, 17(56.6%) had completed high/higher secondary in experimental group and 10(33.3%) were in control group and 3(10%) of them were illiterate in experimental group and 6(20%) were illiterate in control group.

Regarding family monthly income majority 20(66.6%) of the adolescents parents earned an income less than Rs.10,000 both in experimental group and 17(56.6%) in control group.

Considering the educational performance in school, majority 10(33.3%) of the adolescents had scored 81-90% in experimental group and 4(13.3%) had scored <50%, in experimental group.

Regarding to attendance in school, all the 30(100%) adolescents had regular attendance in experimental group and a large percentage 28(93.3%) of adolescent had regular attendance and only 2(6.66%) of adolescents had irregular attendance in control group.

Most of the adolescents were urban settlers both in experimental 30(100%) and control group 26(86.6%)

Both in experimental and control group, all of them were dwelling in Home only.

Regarding Health status, majority of adolescents were 24(80%) healthy in experimental group and 28(93.3%) were in control group and none of them had chronic disease both in experimental and control group.

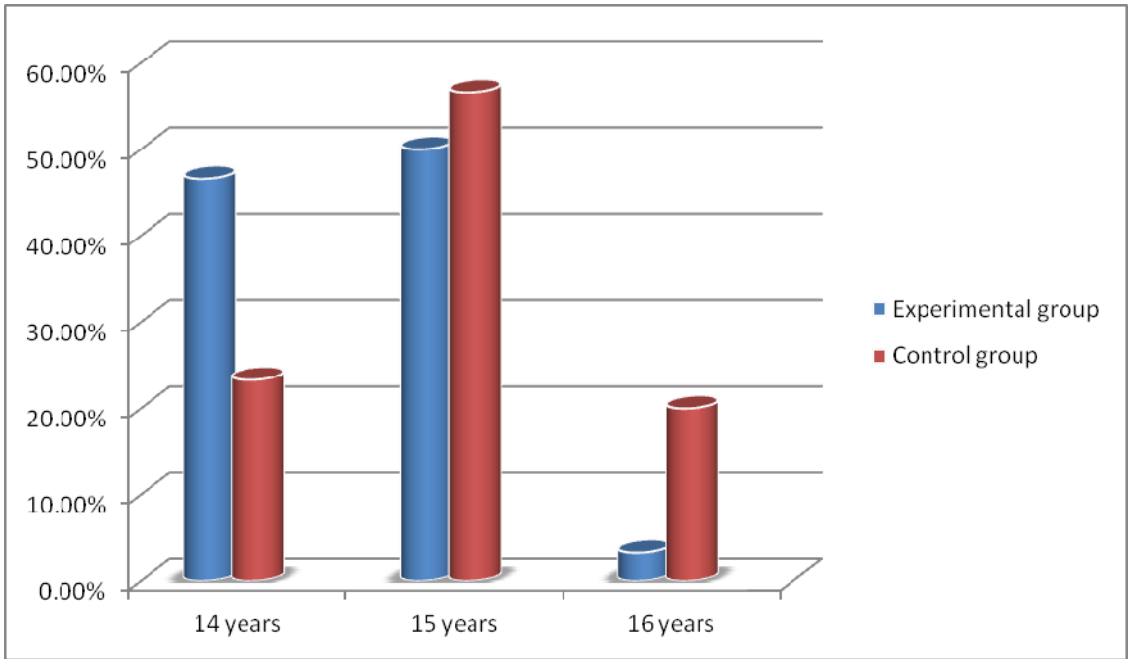

Figure 2: Distribution of adolescents according to their age in experimental and control group.

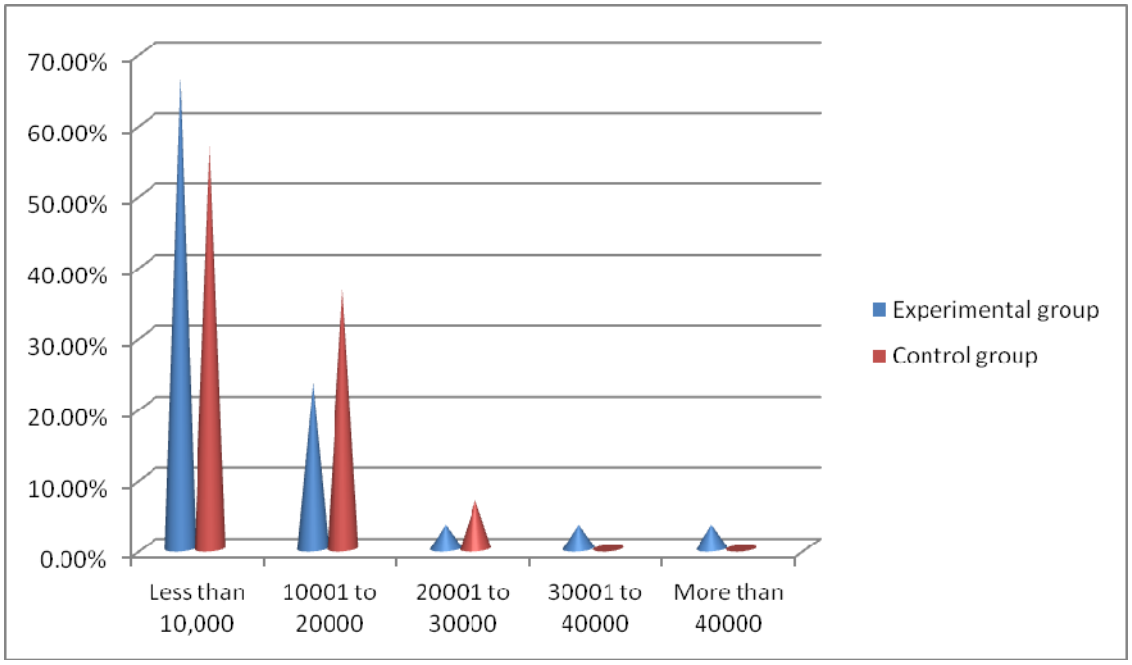

Figure 3: Distribution of adolescents according to their family monthly income in the experimental and control group.

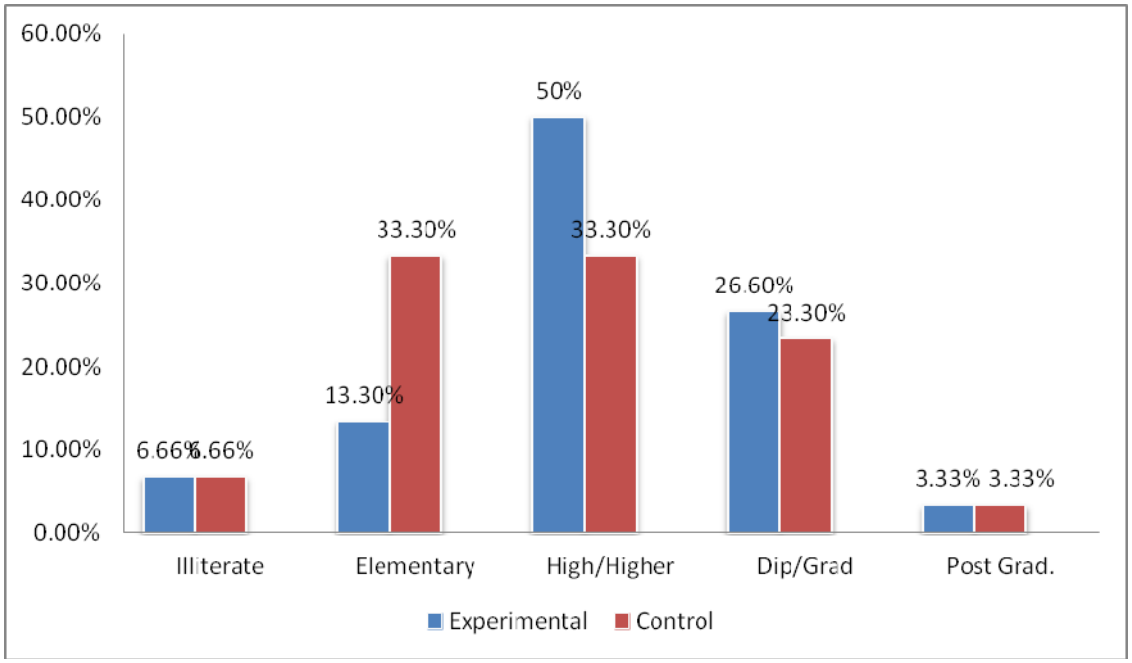

Figure 4: Distribution of adolescents according to their father's educational status in experimental and control group.

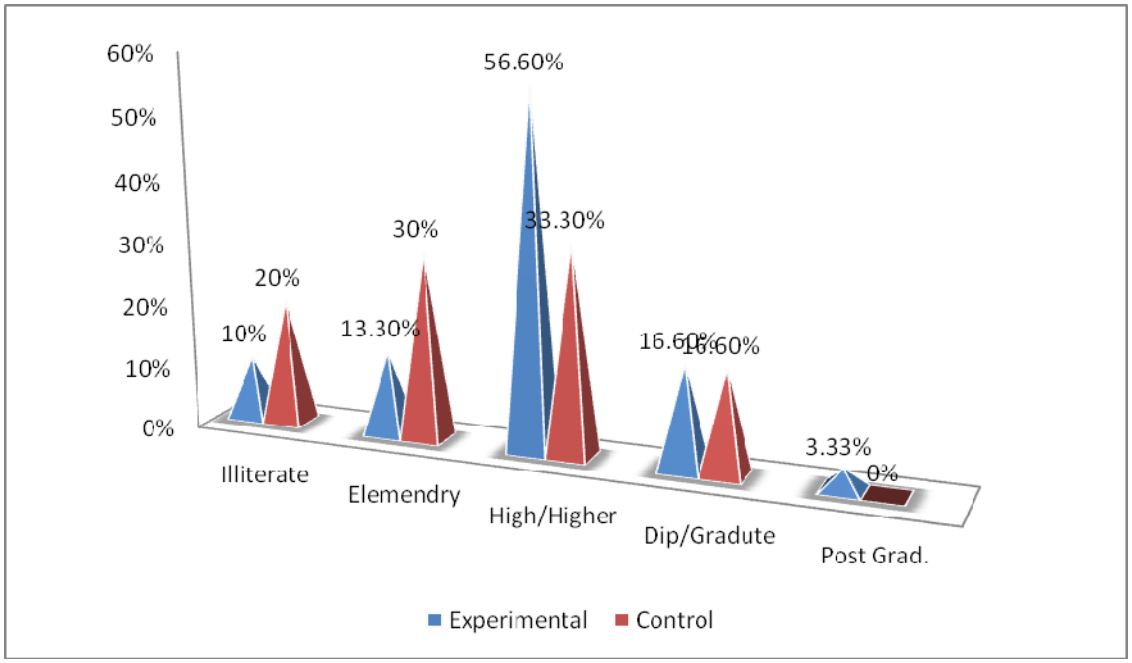

Figure 5: Distribution of adolescents according to their mother's educational status in experimental and control group.

SECTION – II

Table 2: Distribution of adolescence according to the level of examination anxiety in experimental group **N = 30**

Level of Examination Anxiety	Experimental Group			
	Pre Test		Post Test	
	f	%	f	%
Comfortably low test anxiety	1	3.33	4	13.3
Normal or average test anxiety	3	10	17	56.6
High normal test anxiety	4	13.3	9	30
Moderately high	13	43.3	0	0
High test anxiety	5	16.6	0	0
Extremely high anxiety	4	13.3	0	0

Table 2 depicts the pre test and post test level of examination anxiety in experimental group.

Among experimental group in pre test, majority 13(43.3%) of the adolescents had experienced moderately high test anxiety, 5(16.6%) had experienced high test anxiety, and 4(13.3%) had experienced high normal test and extremely high anxiety. After the intervention, the number of adolescents in moderately high test anxiety, high test anxiety and extremely high anxiety has decreased to 0(0%), High normal test anxiety has increased to 9(30%).Normal or average test anxiety has increased to 17(56.6%) and comfortably low test anxiety also has increased to 4(13.3%).This shows that, the intervention is effective in reducing the examination anxiety of adolescents

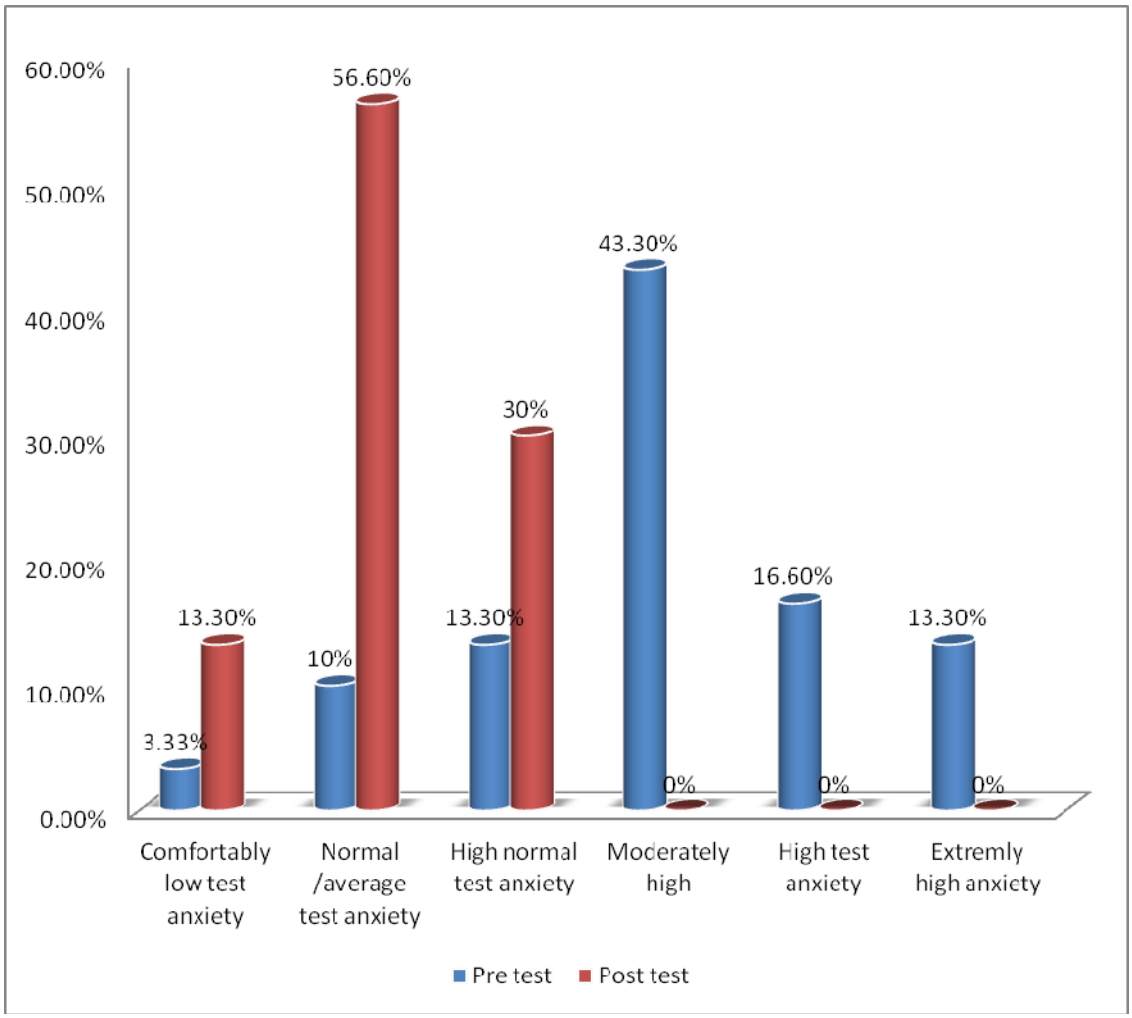

Figure 6: Pre test and post level of examination anxiety in the experimental group

Table 3: Distribution of adolescents according to the level of examination anxiety in control group. **N = 30**

Level of Examination Anxiety	Control Group			
	Pre Test		Post Test	
	f	%	f	%
Comfortably low test anxiety	0	0	1	3.3
Normal or average test anxiety	0	0	0	0
High normal test anxiety	5	16.6	5	16.6
Moderately high	13	43.3	10	33.3
High test anxiety	6	20	7	23.3
Extremely high anxiety	6	20	7	23.3

Table 2 depicts the pre test and post test level of examination anxiety in control group.

Among control group in pre test, majority 14(46.6%) of the adolescents had experienced moderately high test anxiety, 6(20%) adolescents had experienced high test anxiety and extremely high anxiety, and 5(16.6%), adolescents had experienced high normal test anxiety. In the post test the examination anxiety remain same. It may due to no intervention to the control group.

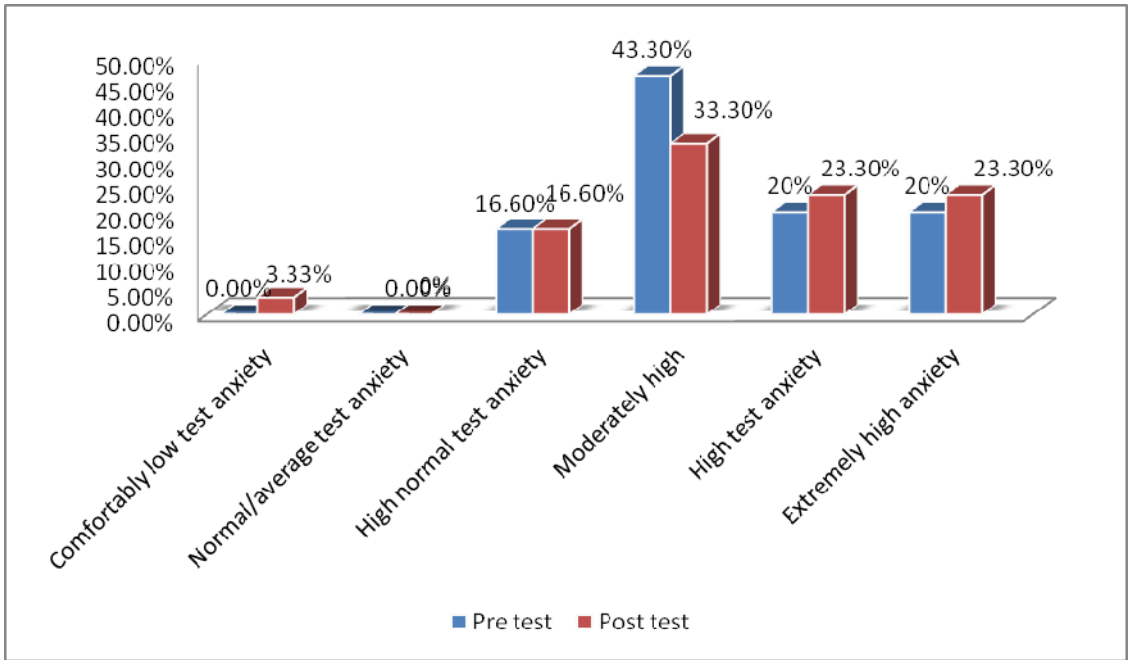

Figure 7: Pre test and post test level of examination anxiety in the control group

SECTION – III

Table 4: Comparison of mean pre test and post test level of examination anxiety among adolescents in experimental group **N = 30**

Variables	Mean	MD	SD	't' value	'p' value
Pre test	33.3		7.69		
		11.3		9.02	0.005
Post test	22.5		3.3		

* Significant at 0.05 level.

To compare the mean pre test and post test level of examination anxiety among adolescents in the experimental group, the null hypothesis was stated as follows;

Ho1-There will be no significant difference between the pre test and post test level of examination anxiety at 0.05 level of significance.

The hypothesis was tested using paired't' test.

This table portrays, that the mean post test level of examination anxiety (22.5) was lesser than the mean pre test level of examination anxiety (33.8). The obtained't' value (9.02) was statistically highly significant at 0.05 level. This illustrates that the mean difference of (11.3) was a true difference and has not occurred by chance. This may due to the effect of guided imagery. Hence the researcher accept research hypothesis and reject the null hypothesis

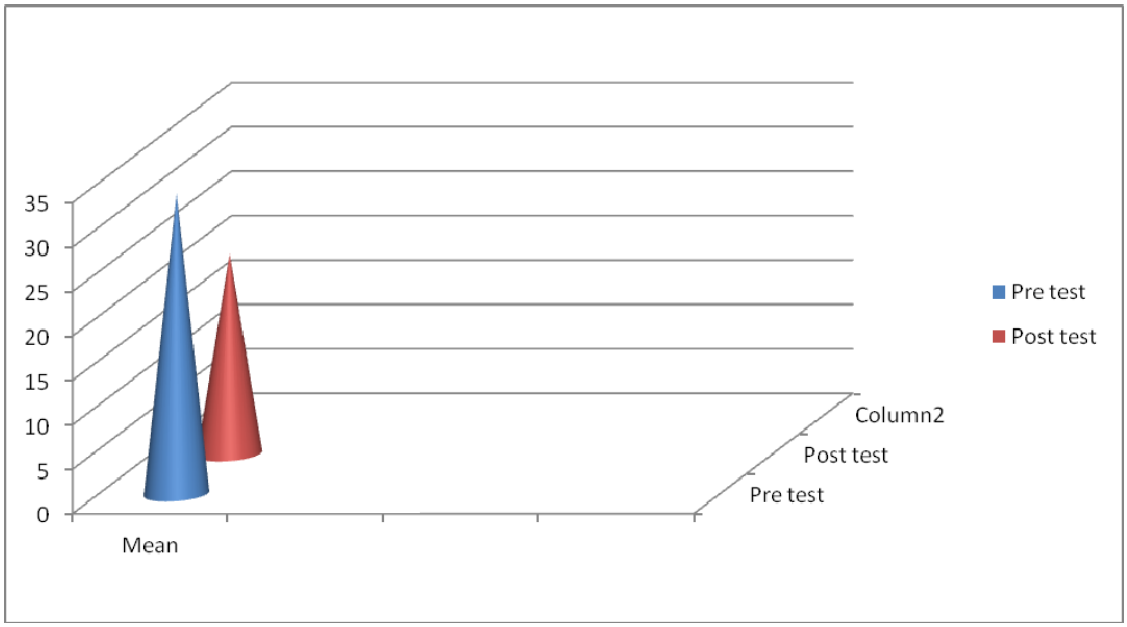

Figure 8: Comparison of mean pre test and post test level of examination anxiety of adolescents in experimental group

Table 5: Comparison of adolescents of mean pre test and post test level of examination anxiety in control group **N = 30**

Variables	Mean	MD	SD	't' value	'p' value
Pre test	34.2		5.24		
		0.7		0.34	0.005
Post test	33.5		6.40		

Not significant at 0.05 level.

To compare the mean pre test and post test level of examination anxiety among adolescents in the control group, the null hypothesis was stated as follows;

There will be no significant difference between the pre test and post test level of examination anxiety at 0.05 level of significance.

The hypothesis was tested using paired't' test.

This table portrays that the mean pre test (34.2) and post test level of examination anxiety (33.5) remain same. The obtained' value (0.34) was statistically not significant at 0.05 level. Hence, the researcher reject research hypothesis and accepts null hypothesis.

This may due to no intervention for control group.

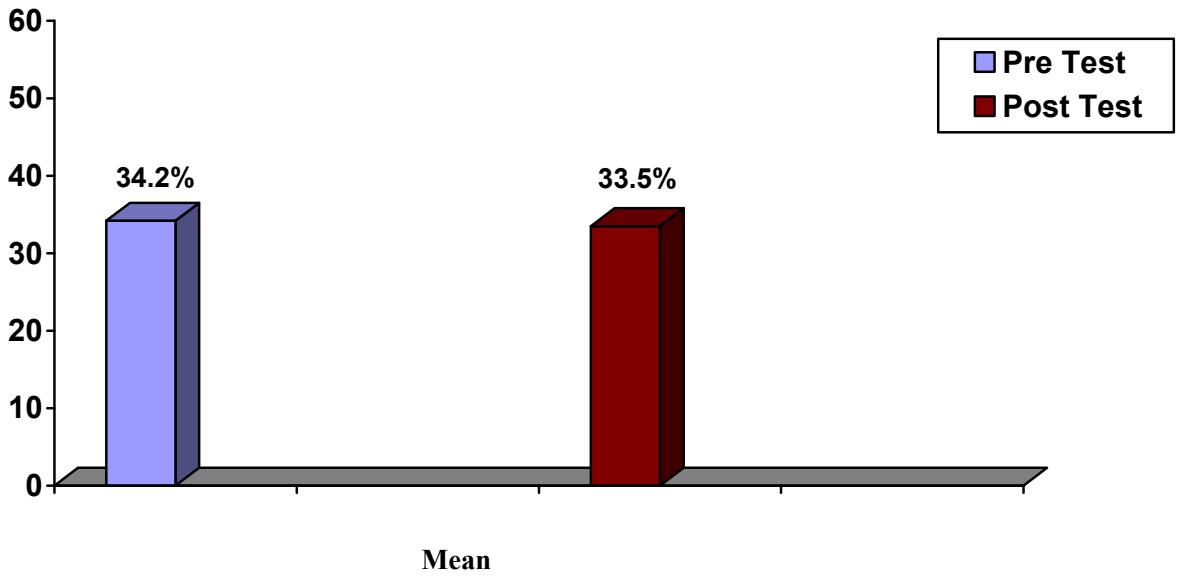

Figure 9: Comparison of mean pre test and post test level of examination anxiety of adolescents in control group

Table 6: Comparison of mean post test level of examination anxiety in experimental and control group **N = 60**

Variables	Mean	MD	SD	't' value	'p' value
Experimental group	22.5		3.3		
		9		9.16	0.05
Control group	33.5		6.4		

* Significant at 0.05 level.

To compare the mean post test level of examination anxiety among adolescents in the experimental group and control group, the null hypothesis was stated as follows;

Ho2-There will be no significant difference between the mean post test level of examination anxiety of adolescents in experimental group and control group at 0.05 level of significance.

The hypothesis was tested using independent't' test.

This table portrays that the mean post test level of examination anxiety of adolescents in experimental group (22.5) was lesser than the mean post test level of examination anxiety of adolescents in control group (33.5). The obtained' value 9.16 was statically highly significant at 0.05 level, This illustrate the, mean difference of (9) was a true difference and has not occurred by chance. This may due to the effect of guided imagery. Hence, the researchers accept researcher hypothesis and reject the null hypothesis.

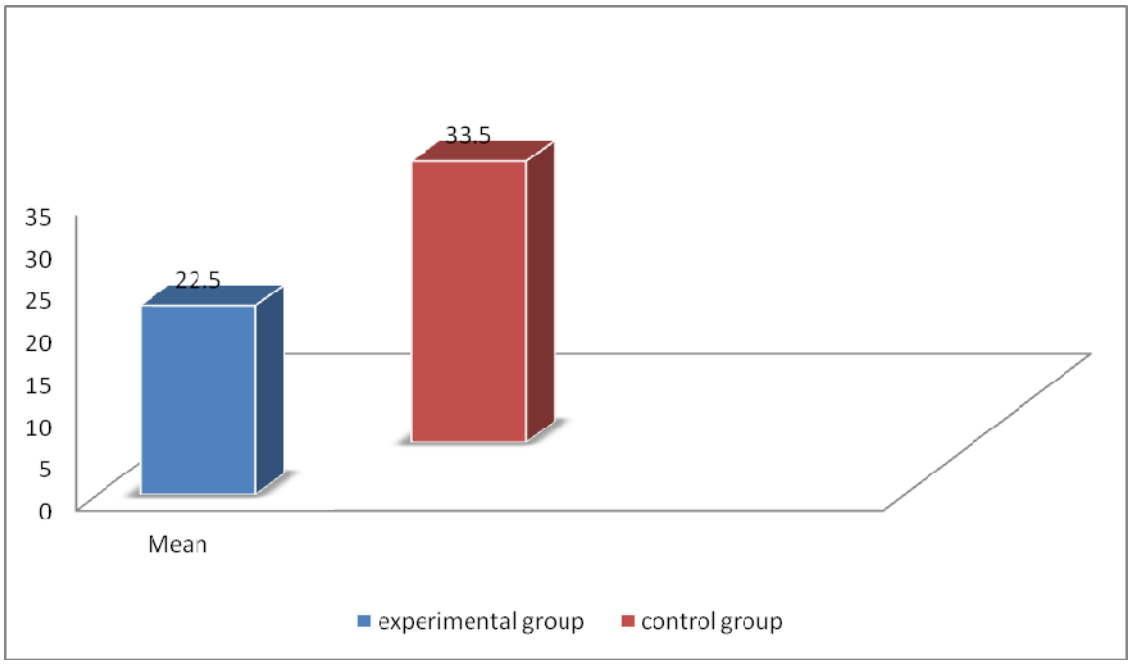

Figure 10: Comparison of mean post test level of examination anxiety of adolescents in experimental and control group

SECTION – IV

Table 7: Association between the pre test level of examination anxiety and demographic variables of the adolescents in experimental group

n = 30

Demographic Variables	Pre Test							
	CLTA	NTA	HNTA	MH	HTA	EHA	$\chi 2$	df
Age: (in years)								
➢ 14	1	2	1	5	4	1		
➢ 15	0	1	1	7	3	3	4.03	10
➢ 16	0	0	0	1	0	0		
Sex:								
➢ Male	0	2	2	12	4	2	6.50	5
➢ Female	1	1	1	1	2	2		
Religion:								
➢ Hindu	1	2	3	12	6	2		
➢ Muslim	0	0	0	1	0	1	10.8	15
➢ Christian	0	1	0	0	0	1		
Father's Educational Status:								
➢ Illiterate	0	0	1	1	0	0		
➢ Elementary school	0	2	0	1	1	0		
➢ High/Higher secondary	1	0	1	7	3	3	19.3	20
➢ Diploma / Graduate	0	1	1	4	1	1		
➢ Post Graduate	0	0	0	0	1	0		
Mother's Educational Status:								
➢ Illiterate	0	0	1	2	0	0		
➢ Elementary school	0	1	0	2	1	0		
➢ High/Higher secondary	1	2	0	7	4	3	20.2	20
➢ Diploma / Graduate	0	0	1	2	1	1		
➢ Post Graduate	0	0	1	0	0	0		

Demographic Variables	Pre Test							
	CLTA	NTA	HNTA	MH	HTA	EHA	$\chi 2$	df
Father's Occupation:								
➢ Coolie	0	0	0	2	3	0		
➢ Business	0	1	1	4	0	0		
➢ Farmer	0	0	0	0	0	0	23.9	25
➢ Govt. Job	0	1	1	1	0	0		
➢ Private job	1	0	1	6	4	3		
➢ Un employee	0	0	0	0	0	1		
Mother's Occupation:								
➢ Coolie	0	0	0	1	0	1		
➢ Business	0	0	0	0	0	0		
➢ Govt. Job	0	0	1	1	1	1	2.41	20
➢ Private job	0	0	0	0	0	0		
➢ Housewife	0	0	4	11	5	4		
Family Monthly Income:								
➢ Less than Rs.10,000	1	2	1	10	4	2		
➢ Rs.10,001 – 20,000	0	1	1	2	2	0		
➢ Rs.20,001 – 30,000	0	0	1	1	0	0	20.6	20
➢ Rs.30,001 – 40,000	0	0	0	0	0	0		
➢ Greater than Rs.40,000	0	0	0	0	0	2		
Type of Family:								
➢ Nuclear family	1	3	2	11	5	3		
➢ Joint family	0	0	0	2	1	1	10.6	15
➢ Extended family	0	0	1	0	0	0		

Table cont…

Demographic Variables	Pre Test							
	CLTA	NTA	HNTA	MH	HTA	EHA	$\chi 2$	df
Educational performance in School:								
➢ > 90%	1	1	0	3	1	0		
➢ 81 – 90%	0	1	1	4	2	2		
➢ 71 – 80%	0	1	0	1	0	0		
➢ 61 – 70%	0	0	1	2	1	0		
➢ 51 – 60%	0	0	0	2	1	1		
➢ < 50%	0	0	1	1	1	1	15.6	25
Attendance in School:								
➢ Regular	1	3	3	13	6	4		
➢ Irregular	0	0	0	0	0	0	0	5
Residence:								
➢ Urban	1	3	3	13	6	4		
➢ Rural	0	0	0	0	0	0	0	5
Dwelling place of the student:								
➢ Hostel	0	0	0	0	0	0		
➢ Home	1	3	3	13	6	4	0	5
Extracurricular Activities:								
➢ Indoor activities	1	3	2	5	2	2		
➢ Outdoor activities	0	0	1	8	4	2	10.1	5
Health Status:								
➢ Chronic disease	0	0	0	0	0	0		
➢ Acute disease	0	0	0	0	0	0		
➢ Nutritional problems	1	1	0	3	1	0		
➢ Disabilities	0	0	0	0	0	0	6.18	20
➢ Healthy	0	2	3	10	5	4		

NOTE:

CLTA	-	Comfortably low test anxiety
NTA	-	Normal or average test anxiety
HNTA	-	High normal test anxiety
MH	-	Moderately high
HTA	-	High test anxiety
EHA	-	Extremely high anxiety

To find out the association between pre test level of examination anxiety and demographic variables of the adolescents in the experimental group, null hypothesis was stated as follows;

HO3-There will be no significant association between pre test level of examination anxiety and selected demographic variables of adolescents.

The hypothesis was tested by using chi square.

This table illustrates that there was no significant association between pre test level of examination anxiety and selected demographic variables of adolescents, such as age, sex, religion, father's educational status, mother's educational status, father's occupation, mother's occupation, family monthly income, type of family, educational performance in school, attendance in school, residence, dwelling place, extracurricular activities and health status.

This indicates that the demographic variables has no effect on examination anxiety, this may be due to small sample size.

Hence the researcher rejects research hypothesis and accept null hypothesis.

Table 8: Association between the pre test level of examination anxiety and demographic variables of the adolescents in control group

n = 30

Demographic Variables	Pre Test							
	CLTA	NTA	HNTA	MH	HTA	EHA	$\chi 2$	df
Age: (in years)								
➢ 14	0	0	2	4	1	1		
➢ 15	0	0	1	6	5	4	5.48	10
➢ 16	0	0	2	3	0	1		
Sex:								
➢ Male	0	0	4	7	5	5	2.84	5
➢ Female	0	0	1	6	1	1		
Religion:								
➢ Hindu	0	0	2	8	3	4		
➢ Muslim	0	0	1	3	2	1	2.05	15
➢ Christian	0	0	2	2	1	1		
Father's Educational Status:								
➢ Illiterate	0	0	0	0	1	1		
➢ Elementary school	0	0	1	6	2	1		
➢ High/Higher secondary	0	0	2	4	3	1	10.9	20
➢ Diploma / Graduate	0	0	2	2	0	3		
➢ Post Graduate	0	0	0	1	0	0		
Mother's Educational Status:								
➢ Illiterate	0	0	1	2	2	1		
➢ Elementary school	0	0	1	4	1	2		
➢ High/Higher secondary	0	0	1	5	3	1	5.27	20
➢ Diploma / Graduate	0	0	2	2	0	2		
➢ Post Graduate	0	0	0	0	0	0		

Table cont…

Demographic Variables	Pre Test							
	CLTA	NTA	HNTA	MH	HTA	EHA	$\chi 2$	df
Father's Occupation:								
➢ Coolie	0	1	0	2	1	0		
➢ Business	0	1	1	4	1	1		
➢ Farmer	0	0	0	1	0	1	23.0	25
➢ Govt. Job	0	1	1	0	3	0		
➢ Private job	1	0	3	2	1	3		
➢ Un employee	0	0	0	0	0	1		
Mother's Occupation:								
➢ Coolie	0	0	0	2	0	0		
➢ Business	0	0	0	0	0	0		
➢ Govt. Job	0	0	1	1	1	1	3.24	20
➢ Private job	0	0	0	0	0	0		
➢ Housewife	0	0	4	10	5	5		
Family Monthly Income:								
➢ Less than Rs.10,000	0	0	2	7	2	6		
➢ Rs.10,001 – 20,000	0	0	3	4	4	1		
➢ Rs.20,001 – 30,000	0	0	0	1	0	0	6.2	20
➢ Rs.30,001 – 40,000	0	0	0	0	0	0		
➢ Greater than Rs.40,000	0	0	0	0	0	0		
Type of Family:								
➢ Nuclear family	0	0	3	11	6	6		
➢ Joint family	0	0	1	1	0	0	5.0	15
➢ Extended family	0	0	1	1	0	0		
Educational performance in School:								
➢ > 90%	0	0	3	6	1	2		
➢ 81 – 90%	0	0	2	2	3	2		
➢ 71 – 80%	0	0	0	3	2	1	6.78	25

Table cont…

Demographic Variables	Pre Test							
	CLTA	NTA	HNTA	MH	HTA	EHA	$\chi 2$	df
➢ 61 – 70%	0	0	0	2	0	1		
➢ 51 – 60%	0	0	0	0	0	0		
➢ < 50%	0	0	0	0	0	0		
Attendance in School:								
➢ Regular	0	0	4	13	6	5	3.75	5
➢ Irregular	0	0	1	0	0	1		
Residence:								
➢ Urban	0	0	4	12	6	4	3.55	5
➢ Rural	0	0	1	1	0	2		
Dwelling place of the student:								
➢ Hostel	0	0	0	0	0	0	0	5
➢ Home	0	0	5	13	6	6		
Extracurricular Activities:								
➢ Indoor activities	0	0	2	4	4	4	3.36	5
➢ Outdoor activities	0	0	3	9	2	2		
Health Status:								
➢ Chronic disease	0	0	0	0	0	0		
➢ Acute disease	0	0	0	1	0	0		
➢ Nutritional problems	0	0	1	0	0	0	6.69	20
➢ Disabilities	0	0	0	0	0	0		
➢ Healthy	0	0	4	12	6	6		

NOTE:

CLTA - Comfortably low test anxiety
NTA - Normal or average test anxiety
HNTA - High normal test anxiety
MH - Moderately high
HTA - High test anxiety
EHA - Extremely high anxiety

To find out the association between pre test level of examination anxiety and demographic variables of the adolescents in the control group, null hypothesis was stated as follows;

HO4-There will be no significant association between pre test level of examination anxiety and selected demographic variables of adolescents at 0.005 level of significance.

The hypothesis was tested by using chi square

This table illustrates that there was no significant association between pre test level of examination anxiety and selected demographic variables of adolescents, such as age, sex, religion, father's educational status, mother's educational status, father's occupation, mother's occupation, family monthly income, and type of family, educational performance in school, attendance in school, residence, dwelling place, extracurricular activities and health status.

This indicates that the demographic variables has no effect on examination anxiety, this may due to small sample size.

Hence, the researcher rejects research hypothesis and accept null hypothesis.

CHAPTER – V

DISCUSSION

Exam anxiety is a common experience amongst students. There is a common misconception that anxiety during a test will "keep the mind sharp". However, a recent study funded by the U.S. Department of Education found that students with high test anxiety achieve significantly lower test scores than students with low or no anxiety during test taking. Fortunately, it is entirely possible for any student to overcome test anxiety.

The aim of their study was to evaluate the effectiveness of guided imagery on examination anxiety among adolescents in selected schools at Madurai.

The study findings are discussed in this chapter with reference to the objective and hypothesis stated in chapter-I

Distribution of samples with regards to demographic variables

In experimental group, most 15(50%) of adolescents belonged to the age group of 15years and 17 (56.6%) in control group, and 14(46.6%) of the adolescents belonged to the age group of 14years and 7(23.3%)in control group and only 1(3.33%) adolescent belonged to 16years in experimental group but in control group 7(11.6%) belonged to 16years.

In experimental group, male and female adolescents constituted 22(73.3%) and 8(26.6%) respectively and in control group male and female adolescents constituted 21(70%) and 9(30%).

Considering the father's educational status 15(50%) had completed high/higher secondary in experimental group, where as in control group 10(33.3%) had high/higher and elementary school. Considering the mother's educational status 17(56.6%) had complete high/higher secondary in experimental group and 10(33.3%)

were in control group and 3(10%) of them were illiterate in experimental group and 6(20%) were illiterate in control group.

Considering the educational performance in school, majority 10(33.3%) of the adolescents had scored 81-90% in experimental group and 4(13.3%) had scored <50%, Where as in control group 12(40%) had scored >90% and none of them scored <50%

The first objective of the study was to assess the pre-test level and post test level of examination anxiety among adolescents in experimental group

There was a marked reduction in the level of examination anxiety among adolescents, after the guided imagery which proves the effectiveness of guided imagery in reducing examination anxiety.

The data presented in table 5 explains that the mean post test level of examination anxiety (22.5) was lesser than the mean pre test level of examination anxiety in the experimental group. The obtained 't' value (9.02) was statistically highly significant at 0.05 level. This illustrate the mean difference of (11.3) was a true difference and has not occurred by chance .This may due to effect of guided imagery.

These findings were consistent with a study findings of Stephens RL(1986).He investigated three groups randomly, imagery-only, imagery/relaxation, and a no treatment for control group for effectiveness of audiotape imagery in reducing anxiety and improving test performance among first year nursing students. It reveals that using audio taped imagery reports an increased sense of well-being, improved ability to sleep, greater energy, and improved self-confidence

The second objective of the study was to assess the pre-test level and post test level of examination anxiety among adolescents in control group

The data presented in table 6 explains that the mean pre test (34.2) and post test level of examination anxiety (33.5) remain same. The obtained 't' value (0.34) was not statistically significant at 0.05 level. There was no significant changes in the level of examination anxiety in the control group. This may be, due to no intervention for control group.

The present study findings correlates with the study report of Korean J (2011) identify the study in effects of guided imagery on stress including cognitive, affective, marital and social and anxiety among women receiving invitro fertilization. The participants were 57 women (26 for the experimental and 31 for control group)and intervention lasts for 8minutes per day for 2 weeks. This results shows that guided imagery is an effective intervention for reducing stress and anxiety among infertile women receiving IVF.

The third objective of the study was to assess the effectiveness of guided imagery on examination anxiety among adolescents.

The data presented in table 7 explains that the mean post test level of examination anxiety in experimental group (22.5) was lesser than the mean post test level of examination anxiety in control group (33.5).The obtained 't' value (9.16) was statistically highly significant at 0.05 level. This illustrate the mean difference of (9) was a true difference and has not occurred by chance .This may due to the effect of guided imagery.

These findings were consistent with a study conducted by Sasikala. G and Senthil Kavitha (2011). It is a randomized study consisting of 14 days relaxation technique. The pre-test for assessing the anxiety level of experimental group revealed

that 65% of subjects had unhealthy anxiety and 35% had healthy anxiety and for control group, 60% had unhealthy anxiety and 40% had healthy anxiety. In post-test for experimental group revealed that 25% of subjects had healthy anxiety and 75% had no anxiety and for control group 60% had unhealthy anxiety and40% had healthy anxiety.

The fourth objective of the study was to find out the association between the pre-test level of examination anxiety and their selected demographic variables(as age, sex, religion, father's educational status, mother's educational status, father occupation, mother occupation, family monthly income, type of family, educational performance in school, attendance in school, residence, dwelling place, extracurricular activities and health status) of adolescents in experimental group and control group.

The table 8&9 illustrates that there was no significant association between pre test level of examination anxiety of experimental and control group and selected demographic variables of adolescents, such as age, sex, religion, father's educational status, mother's educational status, father's occupation, mother's occupation, family monthly income, type of family, educational performance in school, attendance in school, residence, dwelling place, extracurricular activities and health status.

This indicates that the demographic variables has no effect on examination anxiety. This may be due to small sample size.

CHAPTER - VI

SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATIONS

This chapter contains the summary of the study and conclusion drawn. It clarifies the limitations of the study and the implications. The recommendations are given for different areas like nursing education, administration and health care delivery system, nursing practice and nursing research.

SUMMARY

This study was undertaken to evaluate the effectiveness of guided imagery on "examination anxiety" among adolescents in selected schools at Madurai. Adolescents were assessed for examination anxiety by using Westside anxiety scale. The content validity of the tool was established by giving to7 experts. The reliability of the toolwas assessed by split-Half technique with ('r'=0.9) Out of 60samples,30 were selected for experimental group and 30 were selected for control group by using simple random sampling technique. The conceptual framework for this study was based on Widenbach's Helping Art of Clinical Nursing Theory. The data was collected, organized and analyzed using descriptive and inferential statistics.

THE FOLLOWING OBJECTIVES WERE SET FOR THE STUDY;

OBJECTIVES;

1. To assess the pre-test and post-test level of examination anxiety among adolescents in experimental group
2. To assess the pre-test and post-test level of examination anxiety among adolescents in control group
3. To evaluate the effectiveness of guided imagery on examination anxiety among adolescents

4. To find out the association between pre-test level of examination anxiety and selected demographic variables (age, sex, socioeconomic status, type of family, medium of instruction in school) of adolescents in experimental and control group.

The following hypothesis was set for this study:

All hypothesis were tested at 0.05 level of significance

a) The mean post test level of examination anxiety will be significantly lower than the mean pre- test level of examination anxiety among adolescents in experimental group
b) The mean post test level of examination anxiety in the experimental group will be significantly lower than the mean post- test level of examination anxiety among adolescents in control group
c) There will be a significant association between the pre-test level of examination anxiety and selected demographic variables (age, sex, socio - economic status, type of family, medium of instruction in school) of adolescents in experimental and control group.

MAJOR FINDINGS OF THE STUDY

In experimental group, most 15(50%) of the adolescents belonged to the age group of 15years and 17 (56.6%) in control group, and 14(46.6%) of the adolescents belonged to the age group of 14years and 7(23.3%) in control group and only 1(3.33%) adolescent belonged to 16years in experimental group but in control group 7(11.6%) belonged to 16years.

In experimental group, male and female adolescents constituted 22(73.3%) and 8(26.6%) respectively and in control group male and female adolescents constituted 21(70%) and 9(30%).

Regarding religion, Most of the adolescents were from Hindu background both in experimental 26(86.6%) and in control group 17(56.6%)

Considering the father's educational status 15(50%) had completed high/higher secondary in experimental group, where as in control group 10(33.3%) had high/higher and elementary school.

Considering the mother's educational status 17(56.6%) had complete high/higher secondary in experimental group and 10(33.3%) were in control group and 3(10%) of them were illiterate in experimental group and 6(20%) were illiterate in control group.

Regarding family monthly income majority 20(66.6%) of the adolescents parents earned an income less than Rs.10, 000 both in experimental group and 17(56.6%) in control group.

Considering the educational performance in school, majority 10(33.3%) of the adolescents had scored 81-90% in experimental group and 4(13.3%) had scored <50%, Where as in control group 12(40%) had scored >90% and none of them scored <50% .

Regarding to attendance in school, all the 30(100%) adolescents had regular attendance in experimental group and a large percentage 28(93.3%) of adolescent had regular attendance in control group.

Most of the adolescents were urban settlers both in experimental 30(100%) and control group 26(86.6%)

Both in experimental and control group, all of them were dwelling in Home only.

Regarding Health status, majority of the adolescents were 24(80%) healthy both in experimental group and 24(80%) in control group28 (93.3%) None of them had chronic disease both in experimental and control group.

CONCLUSION:

The following conclusions were drawn from the present study.

- ❖ Most of the adolescents in the experimental and control group suffered with examination anxiety.
- ❖ Guided imagery were effective in reducing the level of examination anxiety among adolescents.

The mean post test level of examination anxiety (22.5) was lesser than the mean pre test level of examination anxiety (33.8) in the experimental group. The obtained‘t’ value (9.02) was statistically highly significant at 0.05 level. This illustrates the mean difference of (11.3) was a true difference and has not occurred by chance. This may due to the effect of guided imagery.

The mean post test level of examination anxiety (33.5) was greater than the mean pre test level of examination anxiety (34.2) in the control group. The obtained ‘t’value(0.34) was statistically not significant at 0.05 level.

The mean post test level of examination anxiety in experimental group (22.5) was lesser than the mean post test level of examination anxiety in control group (33.5).The obtained ‘t’value (9.16) was statistically highly significant at 0.05 level. This illustrate the mean difference of (9) was a true difference and has not occurred by chance.

There was no significant association between pre test level of examination anxiety and selected demographic variables of adolescents, such as age, sex, religion, father’s educational status, mother’s educational status, father’s occupation, mother’s

occupation, family monthly income, type of family, educational performance in school, attendance in school, residence, dwelling place, extracurricular activities and health status, This indicates that the demographic variables has no effect on examination anxiety, this may be due to small sample size.

The study findings revealed that guided imagery can be administered to all the adolescents to reduce examination anxiety.

IMPLICATION FOR NURSING:

Nursing practice:

1. The result of the study can create awareness and motivate the nurses to practice guided imagery as a technique of relaxation and as an adjunct to pharmacological methods to examination anxiety.
2. Nurses can teach the techniques of guided imagery to the adolescents and their parents to extend the care even at home.

Nursing education:

1. The results of the study were used as informative illustration to adolescents by their nursing teachers to adapt guided imagery technique as a non pharmacological intervention to reduce the examination anxiety.
2. It could help nursing students to plan and organize the alternative therapies to manage the examination anxiety.
3. Periodic conferences, seminars and symposium can be arranged regarding alternative and complementary therapies to make nursing professional competent to meet the ever changing needs of the society.
4. The study enables the students to acquire knowledge about guided imagery and its uses.

5. Nursing students can use in their daily life situation to reduce the stress and examination anxiety.

Nursing research:

1. The findings of the study served as a basis for the nursing personnel on increasing awareness on guided imagery.
2. The study can be published on journal to disseminate knowledge regarding intervention for examination anxiety and selected associated symptoms.
3. The findings of the study served as a basis for the nursing professional and students to conduct further studies.

Nursing administration:

1. The nursing administrator should take more responsibility to implement a protocol of guided imagery technique / complementary therapies as a relaxation technique for adolescents with examination anxiety.
2. Administrator should motivate the staff for effective examination anxiety management which should help in faster recovery, prevent complications and improve the academic performance and psychological wellbeing.
3. The nursing administrator should organize in-service education about complementary and alternative therapies and provide adequate reading material to refresh their knowledge and get acquainted with newer techniques.
4. All the school should have counselling centre to offer the support during the time of examination.

LIMITATIONS:

The limitations of the study were as follows:

1. The study was conducted among the adolescents from selected school at Madurai. So generalization must be done with caution.

2. The study was done on a small sample (60) hence generalization is possible only for the selected participants
3. The responses were based on self –report of the study samples that could not be counter checked.
4. Long –term follow up is not feasible.
5. The setting of the study was selected as per the convenient of the researcher.

RECOMMENDATIONS

On the basis of the present study the following recommendations have been made for further studies.

1. A comparative study can be performed to evaluate the effectiveness of different complementary therapies like guided imagery with aromatherapy and / or music therapy.
2. A comparative study can be performed to evaluate the effectiveness of guided imagery technique on examination anxiety among adolescent students in private and government schools.
3. A descriptive study could be done to assess the examination anxiety among adolescent students.
4. A similar study can be conducted with case study approach on examination anxiety.
5. A study could be done to evaluate the effectiveness of planned teaching program on examination anxiety and its management.
6. A similar study can be undertaken on a large scale for making a more valid generalization.

SUMMARY

This chapter dealt with summary of the study, major findings of the study, discussion, conclusion, implications to the field, limitations of the study, and recommendations for the further studies.

REFERENCES

BOOKS

- Ahuja N. (1999).*A short textbook of Psychiatric Nursing*, 2nd edition New Delhi: Jaypee Publications,(4)33.
- Basavanthappa. B.T, (2003). *Nursing Research*, 2nd edition, New Delhi: Jaypee Publication, 422-455.
- Basavanthappa. B.T, (2007). *Psychiatric Mental Health Nursing*, 1st edition, Karnataka: Jaypee Publication, 331-334.
- Bimla Kapoor (1994). *Textbook of Psychiatric Nursing*, Volume II. Delhi: Kumar Publication, 45.
- Cathie E. Guzzetta (1998), *Essential Readings in Holistic Nursing,* 1st edition: Aspen Publisher, 278.
- Dennise, F. Polit & Cheryl Tatano Beck. (2004). *Nursing Research Principles & Methods*, 4th edition: Lipponcott Williams& Wilkins, 289-311.
- Fair, J. (2007). *Understanding and applying nursing research*, 3rd edition. Philadelphia: FA Davis Company, 233-251.
- Frank W. Bond, Windy Dryden (2002). *Handbook of Brief Cognitive Behaviour Therapy*, British Library Cataloguing in Publication Data, 286-288.
- Gail.W.Stuart & Michele (2005). *principles and practice of psychiatric Nursing*, 8th edition: Missoria Mosby Publication,
- Gaylene Altman (2004), *Delmar's Fundamental & Advanced Nursing Skills*, 2nd edition, Thomas Delmar Learning Publisher, 277-83.
- Gregory J Boyle (2008).The *SAGE Handbook of Personality Theory and Assessment*, Volume 1, British Library Cataloguing in Publication Data, 438.

- Joanne A. Joseph (1994). *The Resilient Child: Preparing Today's Youth for Tomorrow's World*, Perseus Publisher, 170.
- Jon E. Roeckelein (2004). *Imagery in Psychology: a Reference Guide,* 1st edition, Greenwood Publisher, 729.
- Joyce J. Fitzpartrick (2006). *Encyclopedia of Nursing Research,* 2nd edition, Springer Publication Company, 88.
- Kadar Parahoo. (2006). *Nursing Research,* 2nd edition Kadir palgrave, 28-56.
- Kaplan .I. Sadock.J. (1995). *Comphrehensive Textbook of Psychiatry*, 6th edition New York:Williams and Wilkins Publication, 630-645.
- Lois White (2005). *Foundations of Nursing,* 2nd edition, Thomas Delmar Learning Publisher, 22.
- Mahajan.B.K. (2004). *Methods in Biostatistics for Medical Students*, 6th edition Jaypee publication, 168-171.
- Manfred stonnmel & Celia. E. Wills, (2004). *Clinical Research,* 1st edition Philadelphia: Lippincott Williams Publication, 35-40.
- Marty Sapp (2004), *Psychodynamic, Affective, and Behavioural Theories to Psychotherapy*, Charles C -Thomas Publisher, 206.
- Mary Ann Boyd (2008), *Psychiatric Nursing: Contemporary Practice,* 4th edition, Lippincott Williams & Wilkins in Publication, 170.
- Moshe Zeidne (1998). *Test Anxiety: The State of the Art*, Plenum Press Publisher,23
- Polit & Hugler (2004). *Nursing Research Principles & Methods*, 7th edition Philadelphia: Lippincott Publications.

- Randi Fredricks (2008). *Healing and Wholeness: Complementary and Alternative Therapies for Mental Health: A Proven Guided to Evidence-Based Approaches*, All Things Well Publications, 274-329.
- Renu Sharma & Bhupendra M.Palan (2011). *Hypnosis: Psycho-Philosophical Perspectives and Therapeutic Relevance,* 1st edition, Concept Publishing Company, 185.
- Ruth Elder, Katie Evans (2009). *Psychiatric and Mental Health Nursing,* 2nd edition, Elsevier Publication, 314.
- Sandra J. Peterson (2009). *Middle Range Theories: Application to Nursing Research,* 2nd edition, Lippincott Williams & Wilkins in Publication,268.
- Sheila L. Videbeck (2006). *Psychiatric Mental Health Nursing,* 3rd edition, Williams & Wilkins in Publication, 262.
- Sundar Rao, P.S.S (1998). *Introduction to Biostatistics & Research methodology,* 3rd edition New Delhi: Prentice Hall of India. 66-101.
- Wendy Austin, Mary Ann Boyd (2009). *Psychiatric and Mental Health Nursing for Canadian Practice,* 2nd edition, Lippincott Williams & Wilkins in Publication, 202.

JOURNALS

- American Psychiatric Association (2000). Diagnostic and Statistical Manual of Mental disorders, 4th edition (Text Revision). Arlington*, VA: American Psychiatric Publication*, Benjamin H (1996) The Transsexual Phenomenon, New York, Julian Press, 32
- Aysan F et.al (2001), Test anxiety, coping strategies, and perceived health in a group of high school students: a Turkish sample, *The Journal of Genetic Psychology*, 402-411.
- Balamurugan G, Exam anxiety in school students. *Nightingale nursing times*,(3)4-8.
- Beggs C et.al (2011). Using guided reflection to reduce test anxiety in nursing students, *Journal of Holistic Nursing,* 29(2):149-7.
- Black, S. (2005). Test anxiety. American School Board Journal, 192(6), 42-44.
- Bodas J et.al (2008). Test anxiety in Indian children: a cross-cultural perspective, *Anxiety Stress Coping journal,* 387-404.
- Carrico DJ et.al (2008). Guided imagery for women with interstitial cystitis: results of a prospective, randomized controlled pilot study, *Journal of Alternative and Complementary Medicin*e, 14(1):53-60.
- David Fernandez & George J. Allen (2007). Test anxiety, emotional responding under guided imagery, and self-talk during an academic examination, Anxiety, Stress & Coping, *An International Journal,* volume 2, issue 1: 15-26.
- Gedde-Dahl M. Fors EA (2012). Impact of self-administered relaxation and guided imagery techniques during final trimester and birth, *Complementary therapies in Clinical practice Journal*, 18(1):60-5.

- Heidi A. Larson et.al (2010). Reducing Test Anxiety among Third Grade Students through the Implementation of Relaxation Techniques, *Journal of School Counselling,(*8),19.
- Iglesias SL et.al (2012). Psychological and Physiological response of students to different types of stress management programs*, American Journal of Health Promotion,* 26(6):149-158.
- Mandler G & Sarason S B (1952). A study of anxiety and learning, *Journal of Abnormal & Social Psychology*, (47)166-73.
- Melissa A. Bray (2010). School-Based Intervention: Relaxation and Guided Imagery for Students with Asthma and Anxiety Disorder, *Canadian Journal of School Psychology*, vol. 25 no. 4 311-327.
- Mizrahi MC et.al (2012). Effects of guided imagery with relaxation training on anxiety and quality of life among patients with inflammatory bowel disease, *Journal of Psychology Health*, 27(12),1463-79.
- Rees BL (1995) .Effect of relaxation with guided imagery on anxiety,depression, and self-esteem in primiparas, *Journal of Holistic Nursing*,13(3):255-276.
- Roshan Lal Zinta (2008). Effectiveness of Guided Mastery Treatment for Reducing Test Anxiety among Self-Efficacious Students*, Journal of the Indian Academy of Applied Psychology*, (34) 233-239.
- Sasikala. R and Senthil Kavitha G, Effectivess of guided imagery in reducing students examination anxiety, *Nightingale nursing times*, (9) 57-59.
- Shachi Mathur, Waheeda Khan (2011). Impact of Hypnotherapy on Examination Anxiety and Scholastic Performance among School Children, *Delhi Psychiatry Journal*, Vol.14, 337.

- Sharma S et.al (1996). Behavioural intervention in test anxiety, *NIMHANS Journal,* 14(1): 57-60.
- Speck BJ (1990). The effect of guided imagery upon first semester nursing students performing their first injections, *Journal of Nursing Education*, 29(8):360-50.
- Stephens RL (1992). Imagery: a treatment for nursing student anxiety, *Journal of Nursing Education*, 31(7):314-20.
- Thompson MB, Coppens NM (1994). The effects of guided imagery on anxiety levels and movement of clients undergoing magnetic resonance imaging*, Holistic Nursing Practice*, 8(2),59-69.
- Venkatesh Kumar. G and Karimi (2010). Mathematics Anxiety, Mathematics Performance and Overall Academic Performance in High School Students, *Journal of the Indian Academy of Applied Psychology*, (36),147-150.
- Yin-Hsing Tseng & Meng Ling Wang (2011). The Application of Guided Imagery to Reduce High School Students' Test Anxiety, *Journal of Youth Studies*, 1(14) , 98.

NEWSPAPER & ARTICLES

- Anush Gupta (2012). Board exam anxiety, *The Times of India*.
- Elizabeth Scott (2012). Use Guided Imagery for Relaxation, *About.com: Stress Management.*
- Terror of exam anxiety (2009). *Times of India*.

NET REFERENCE

- www.nimh.nih.gov.
- http://socialanxietydisorder.about.com/od/copingwithsad/tp/Test- Anxiety.htm
- http://www.healthjourneys.com/archivesSingle.asp?aid=826&cid=47
- http://www.augsburg.edu/cchp/test-anxiety/
- http//www.archive.org
- http://admin2.collegepublisher.com/se/the foghorn/overcome-test-anxiety
- http://www.imagerywork.com/master-test-anxiety
- http://www.socc.edu/faculty/rbell/HD113FrameSet.html.
- http://www.nativeremedies.com/ailment/over coming-test-anxiety.html
- http://www.counselingcenter.illinois.edu/?page_id=114
- http://www.adaa.org/living-with-anxiety/children/testanxiet
- https://sites.google.com/site/testinganxiety/home/assessments/taica
- http://www.amtaa.org/scalewest.html
- http://www.healthjourneys.com/what_is_guided_imagery.asp
- http://www.cancer.med.umich.edu/support/guided_imagery.shtmlttp://acadgi.com/whatisguidedimagery/index.html

APPENDIX – I

COPY OF LETTER SEEKING PERMISSION TO CONDUCT THE STUDY IN SELECTED SCHOOLS, MADURAI

4/235, COLLEGE ROAD,

THASILDAR NAGAR,

MADURAI – 625020

Date:

Ref:UT.SHNC:2012

To:

Respected Sir / Madam,

Sub: Sacred Heart Nursing College, Madurai – Project work of M.Sc., (N) Student – Permission Requested - Reg.

We wish to state **Mr. Lawrance.P ,**one of the final year M.Sc., (N) student has to conduct a research project, which is to be submitted to the Tamilnadu Dr. M.G.R. Medical university, Chennai in partial fulfillment of university requirement.

The topic of research is'' **A study to evaluate the effectiveness of guided imagery on "examination anxiety" among adoloscents in selected schools at madurai"**

We therefore request you to kindly permit him to do the research work in your organization under your valuable guidance and suggestions.

Thanking you,

Yours faithfully,

Principal

SACRED HEART NURSING COLLEGE

APPENDIX – II

LETTER REQUESTING OPINIONS AND SUGGESTIONS OF EXPERTS FOR ESTABLISHING CONTENT VALIDITY AND VALIDITY OF THE TOOL

From

P.Lawrance,
M.Sc (N) II year,
Sacred Heart Nursing College,
Madurai.

Respected Madam/ sir,

Sub: Requisition for opinions and suggestions of experts for establishing content validity of research tool.

I am the post graduate student (Psychiatric Nursing) of the Sacred Heart Nursing College.I have selected the below mentioned topic of the research project submitted to DR.M.G.R Medical university,Chennai as a partial fulfilment of master of science in nursing.

TITLE OF THE TOPIC:

"A STUDY TO EVALUATE THE EFFECTIVENESS OF GUIDED IMAGERY ON "EXAMINATION ANXIETY" AMONG ADOLOSCENTS IN SELECTED SCHOOLS AT MADURAI"

With regard to this may I kindly request you to validate my content for its relevancy.I am enclosing the objectives of the study.I would be highly obliged and remain thankful if you could validate and send it as early as possible.

Thanking you,

Date: Yours Sincerely,

Place : Madurai (P.LAWRANCE)

APPENDIX – III

LIST OF EXPERTS CONSULTED FOR CONTENT VALIDITY

1. **Dr.Karthikeyan,MD(Psy)**
   Assistant Professor,
   Department of Psychiatry,
   Govt.Rajaji Hospital,
   Madurai.

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2. **Dr. Nalini Jeyavanth Santha, M.Sc., (N) Ph.D.,**
   Principal,
   Sacred Heart Nursing College,
   Madurai.

3. **Dr.S.Ananthavalli, Ph.D.,**
   Director, The Valliammal Institution, (TVI)
   42-A,First floor,
   Dr.Thangaraj Salai, Vinayaga Nagar,
   Madurai – 625020.

4. **Dr.S.Jeyaprakasam,M.Sc,MA,MA,Ph.D.,**
   Director,Raja Rajan Institute of Science,
   Madurai.

5. **Mrs.Jansy Rachel Daisy,MSc (N)Ph.D**
   Reader,
   C.S.I.Jeyaraj Annapackiam College of Nursing,
   Pasumalai, Madurai.

6. **Mrs.Induja,MSc (N)**
   Asso.professor,
   Sacred Heart Nursing College,
   Madurai

7. **Mrs.Sangeetha,MSc (N)**
   Asso.Professor,
   Sacred Heart Nursing College,
   Madurai

APPENDIX – IV

DEMOGRAPHIC DATA

1. Age : _____

2. Sex : a) Male b) Female

3. Religion : a) Hindu b) Muslim

c) Christian d) Others(specify)

4. Educational status of father: a) Illiterate b) Elementary

c) High/higher secondary

d) Diploma/graduate e) Post graduate

5. Educational status of mother: a) Illiterate

b) Elementary

c) High/higher secondary

d) Diploma/graduate

e) Post graduate

6. Occupation of father : a) Coolie b) Former

c) Business d) Government staff

e) Professional

7. Occupation of mother : a) Housewife b) Coolie

c) Business d) Government staff

e) Professional

8. Family monthly income : a) Below Rs.5000 b) Rs.5000-10,000

c) Rs.10,000-15,000 d) Rs.15,000-20,000

e) Above Rs.20,000

9. Types of family : a) Nuclear b) Joint

c) Extended

10. Educational performance in school:

a) ‘O’ grade

b) ‘A’ grade

c) ‘B’ grade

d) ‘C’ grade

11. Attendance in school : a) Regular b) Irregular

12. Residence : a) Urban b) Rural

13. Dwelling place of the student : a) Hostel b) Home

14. Extracurricular activities : a) Indoor activities

b) Outdoor activities

15. Healthy status : a) Chronic illness

b)Acute illness

c) Nutritional problems

d) Disabilities

APPENDIX - V

TOOL

WESTSIDE TEST ANXIETY SCALE

The Westside Test Anxiety Scale is a brief, ten item instrument designed to identify students with anxiety i who could benefit from an anxiety reduction intervention. The scale items cover self-assessed anxiety and cognitions which can impair performance.

Each item in the Westside Test Anxiety Scale had the following responses as:

5- extremely or always true

4-highly or usually true

3-moderately or sometimes true

2-moderately or sometimes true

1-not at all or never true

After obtaining the score for each items ,calculate the sum of 10 questions and divide the sum by 10. This is obtained Test Anxiety score(50)

Interpretation of test anxiety score is as follows

1.0—1.9 Comfortably low test anxiety

2.0—2.5 Normal or average test anxiety

2.5—2.9 High normal test anxiety

3.0—3.4 Moderately high (some items rated 4=high)

3.5—3.9 High test anxiety (half or more of the items rated 4=high)

4.0—5.0 Extremely high anxiety (items rated 4=high and 5=extreme)

Statement	Extremely or always true 1	Highly or usually true 2	Moderately or sometimes true 3	Slightly or seldom True 4	Not at all or never true 5
The closer I am to a major exam, the harder it is for me to concentrate on the material.					
When I study, I worry that I will not remember the material on the exam.					
During important exams, I think that I am doing awful or that I may fail.					
I lose focus on important exams, and I cannot remember material that I knew before the exam.					
I finally remember the answer to exam questions after the exam is already over.					
I worry so much before a major exam that I am too worn out to do my best on the exam.					
I feel out of sorts or not really myself when I take important exams.					
I find that my mind sometimes wanders when I am taking important exams.					
After an exam, I worry about whether I did well enough.					
I struggle with writing assignments, or avoid them as long as I can. I feel that					
whatever I do will not be good enough.					

APPENDIX – VI

INTERVENTION

GUIDED IMAGERY

INTRODUCTION

Guided imagery technique is a part of cognitive and behavioural therapy. It is considered to be a very effective way of treating a person suffering from mental upset. In this therapy the person is made to think of positive and imagine things which would make him happy. This is a completely safe therapy with no side effects.

MEANING

Guided imagery means **"visualizing", "seeing in the mind's eye", "hearing in the head", "imagining the feel of".**

STEPS OF GUIDED IMAGERY;

There are generally three steps to guided imagery relaxation, visualization and positive suggestion.

Step – I (Relaxation Stage)

Instruct the participants to sit on the chairs, close their eyes and simply become aware of their breathing. With each exhalation, allow the tension in their body to release, as they become increasingly relaxed and comfortable. Instruct them to bring their awareness to forehead and let go of any tension they may feel there.Continue progressive up your legs, gently relaxing the muscle in your calves, thighs, hips, lower back etc.,

Step – II (Visualization Stage)

The entire relaxation phase can take 15-20 minutes. Once they feel relaxed they were asked to open their eyes and suggested to view a video clipping of pleasant natural sceneries that was projected. Following that they were again asked to close their eyes and guided by the researcher's voice commands they began to visualize a scene, visualize a water fall on a mountain, imagine first what this looks like; the rushing water, the stream flowing from it, the size and thickness of the trees all around, the sky above and the sun filtering through the branches and so on. Then imagine how this place would smell-damp and musty or fragrant pine.

They were instructed also to concentrate on the sounds they would hear if they were there: the water rushing over rocks, the hush of the wind rising and then quieting

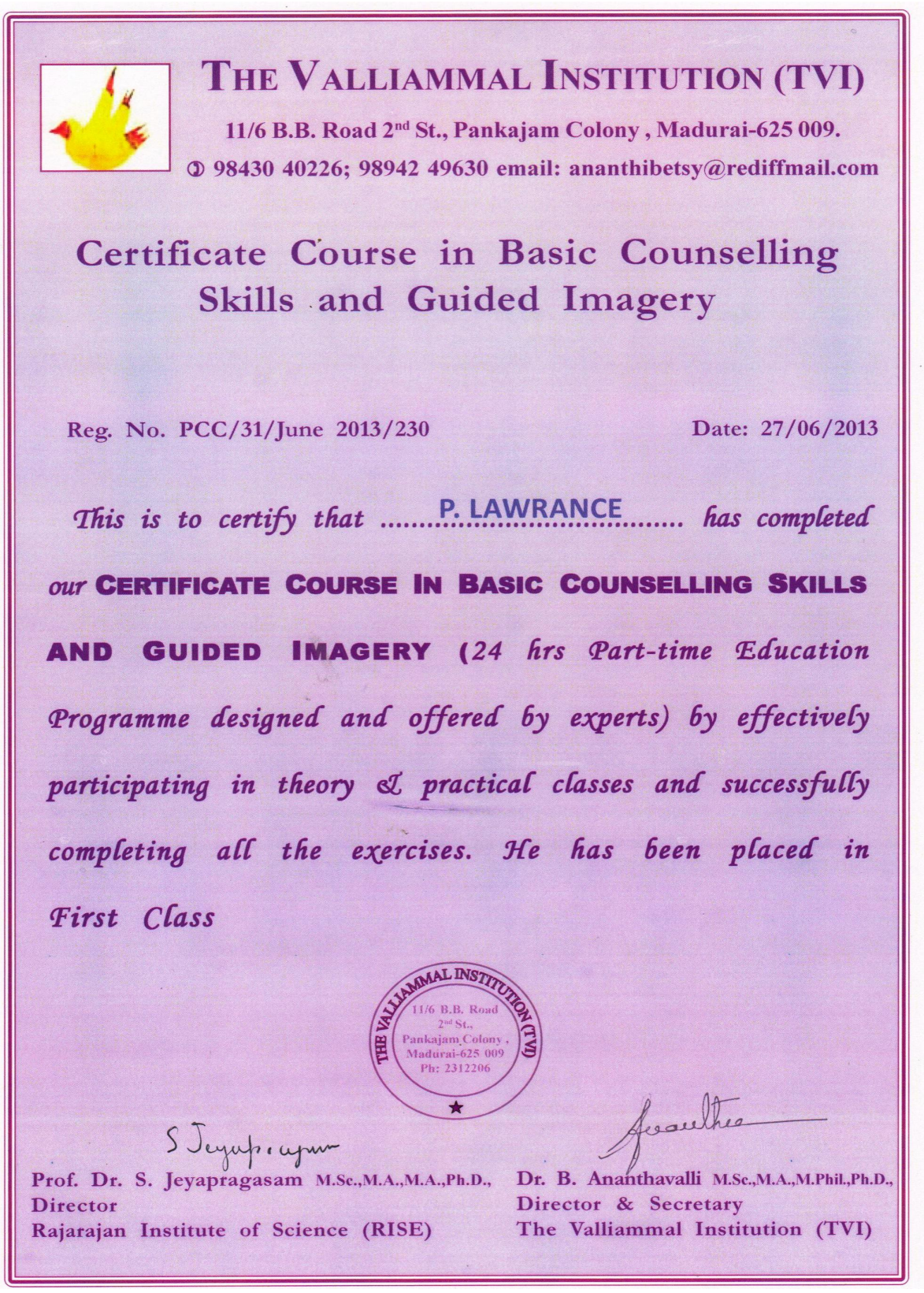
down, birds singing. How does the ground feel beneath your feet? It is rocky and rough, a soft and smooth from pine needles or moss? Look up and down and all around. Notice what you see and how it makes you feel. Say to yourself. "I am relaxed, my anxiety is relieved… tension has flowed out of my body, I can study well and will succeed in my exams and come with flying colours".

Step – III (Positive Suggestion)

When they have thoroughly visualized that place, they were asked to open their eyes but stay in the same comfortable position. At last they were advised to continue to breathe smoothly and rhythmically and take a few movements to experience and enjoy your relaxation.

APPENDIX - VII

CERTIFICATE



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Certificate Course in Basic Counselling Skills and Guided Imagery

Reg. No. PCC/31/June 2013/230 Date: 27/06/2013

This is to certify that P. LAWRANCE *has completed our* **CERTIFICATE COURSE IN BASIC COUNSELLING SKILLS AND GUIDED IMAGERY** *(24 hrs Part-time Education Programme designed and offered by experts) by effectively participating in theory & practical classes and successfully completing all the exercises. He has been placed in First Class*

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Prof. Dr. S. Jeyapragasam M.Sc.,M.A.,M.A.,Ph.D.,
Director
Rajarajan Institute of Science (RISE)

Dr. B. Ananthavalli M.Sc.,M.A.,M.Phil.,Ph.D.,
Director & Secretary
The Valliammal Institution (TVI)

APPENDIX - VIII

PHOTOGRAPHS